

ANTARCTIC SEA ICE ANALYSIS

1991-1992

ADA 286-729

PREPARED BY
NAVAL POLAR OCEANOGRAPHY CENTER
SUITLAND, MD



95-01063
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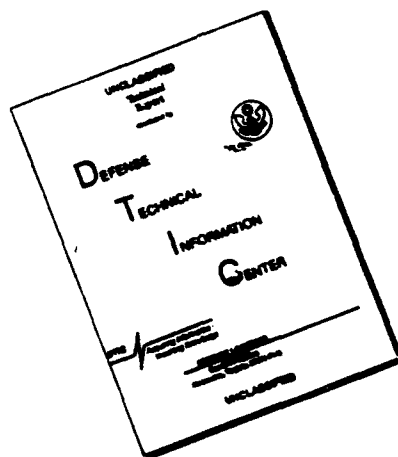
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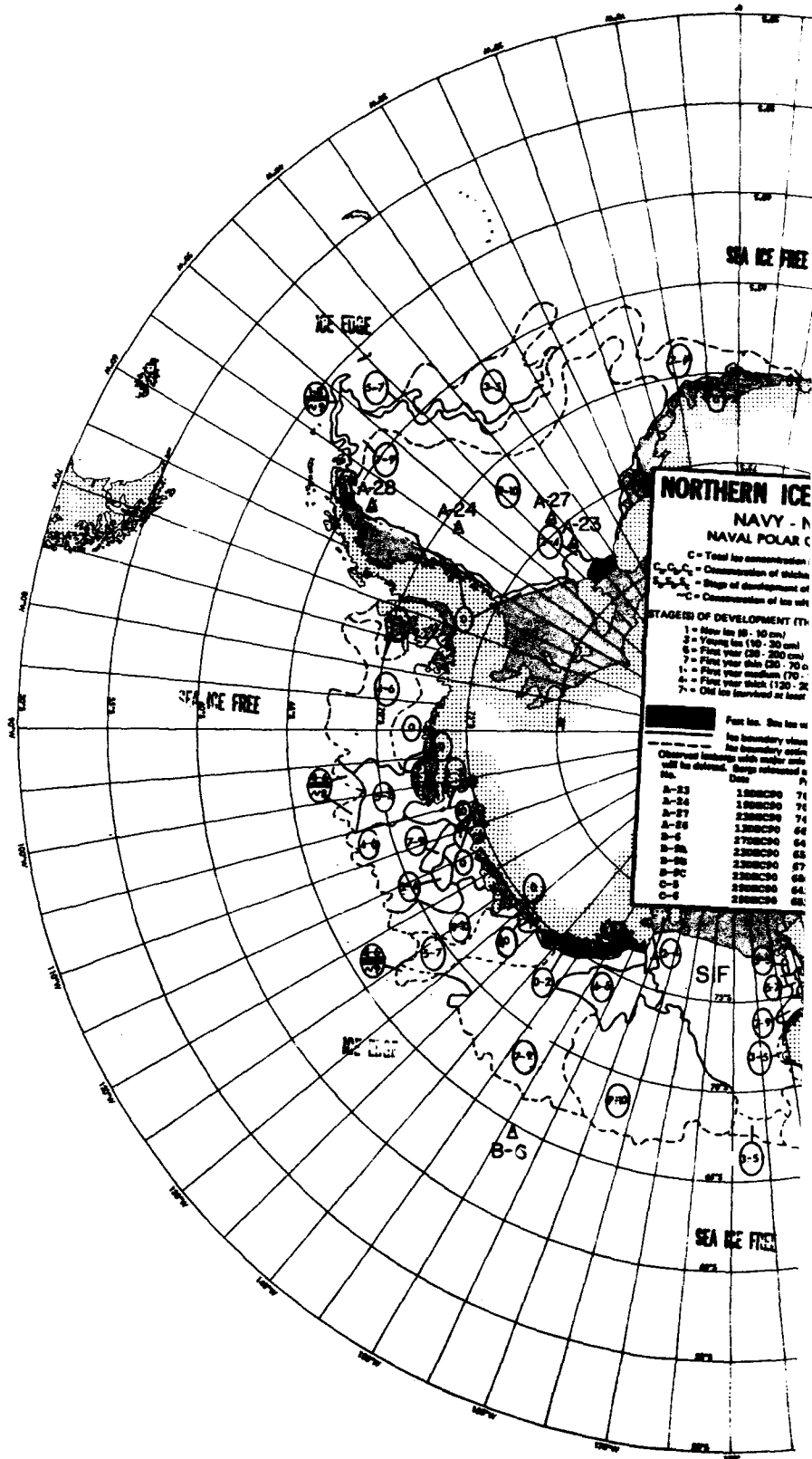
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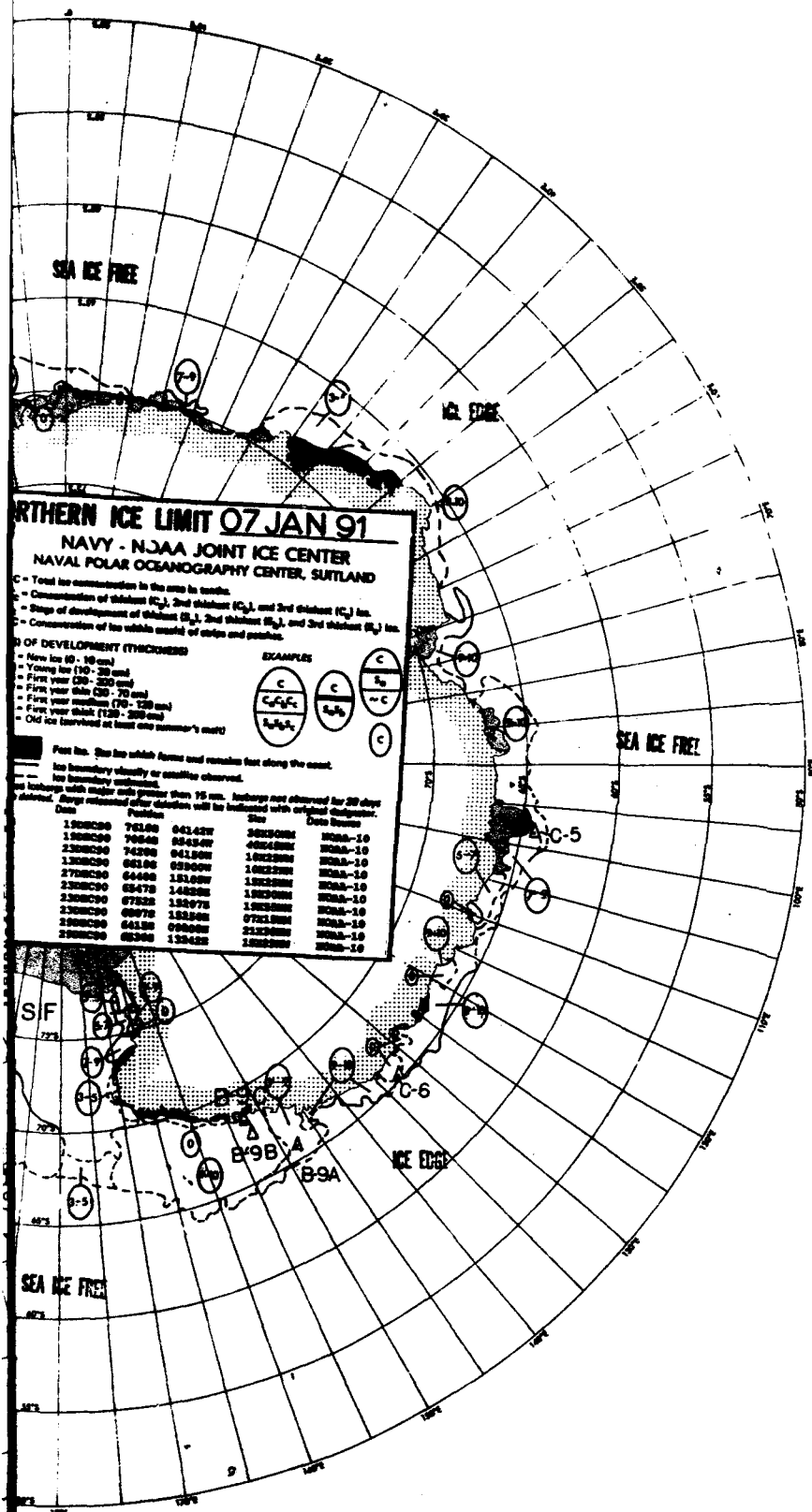
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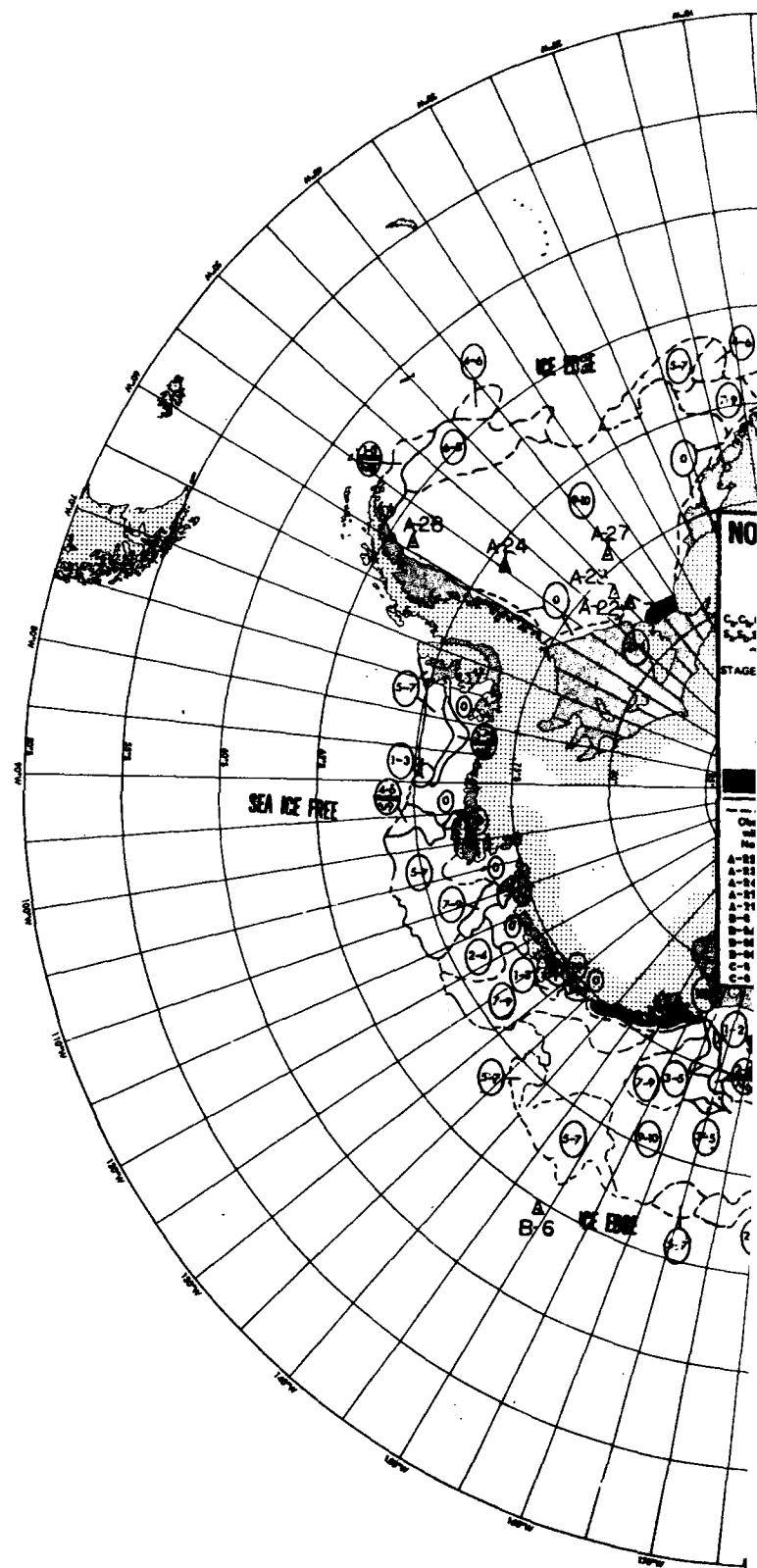
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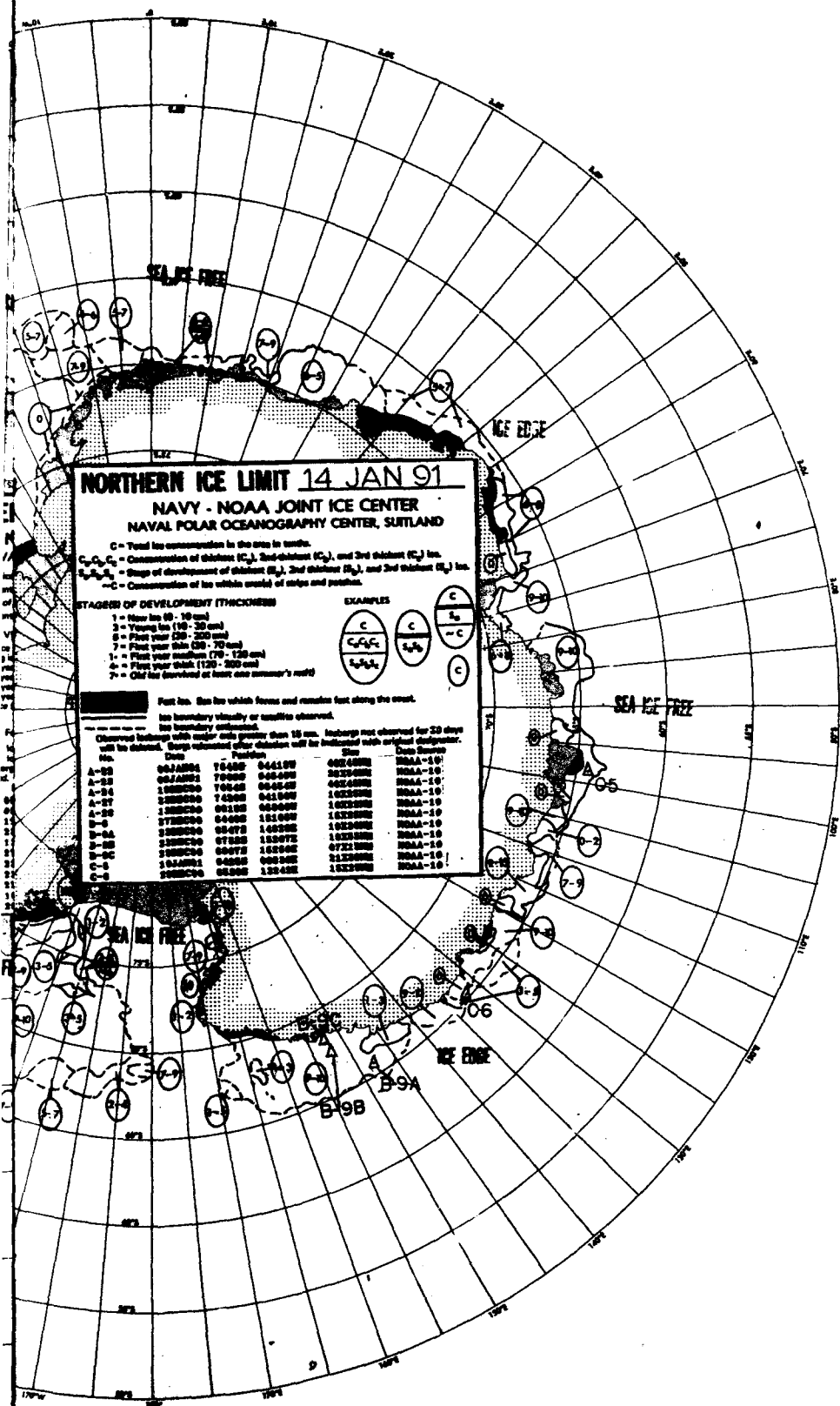


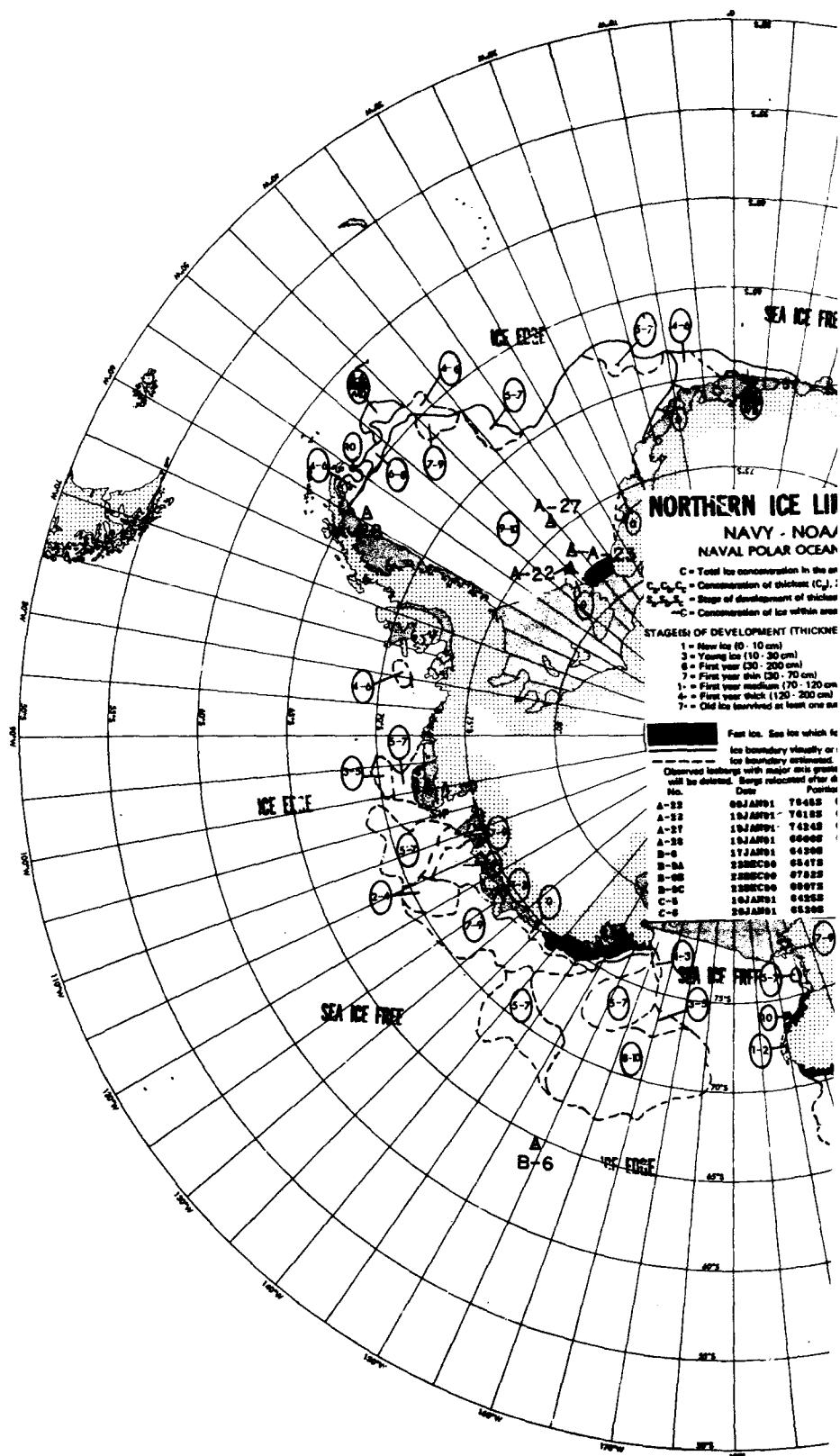
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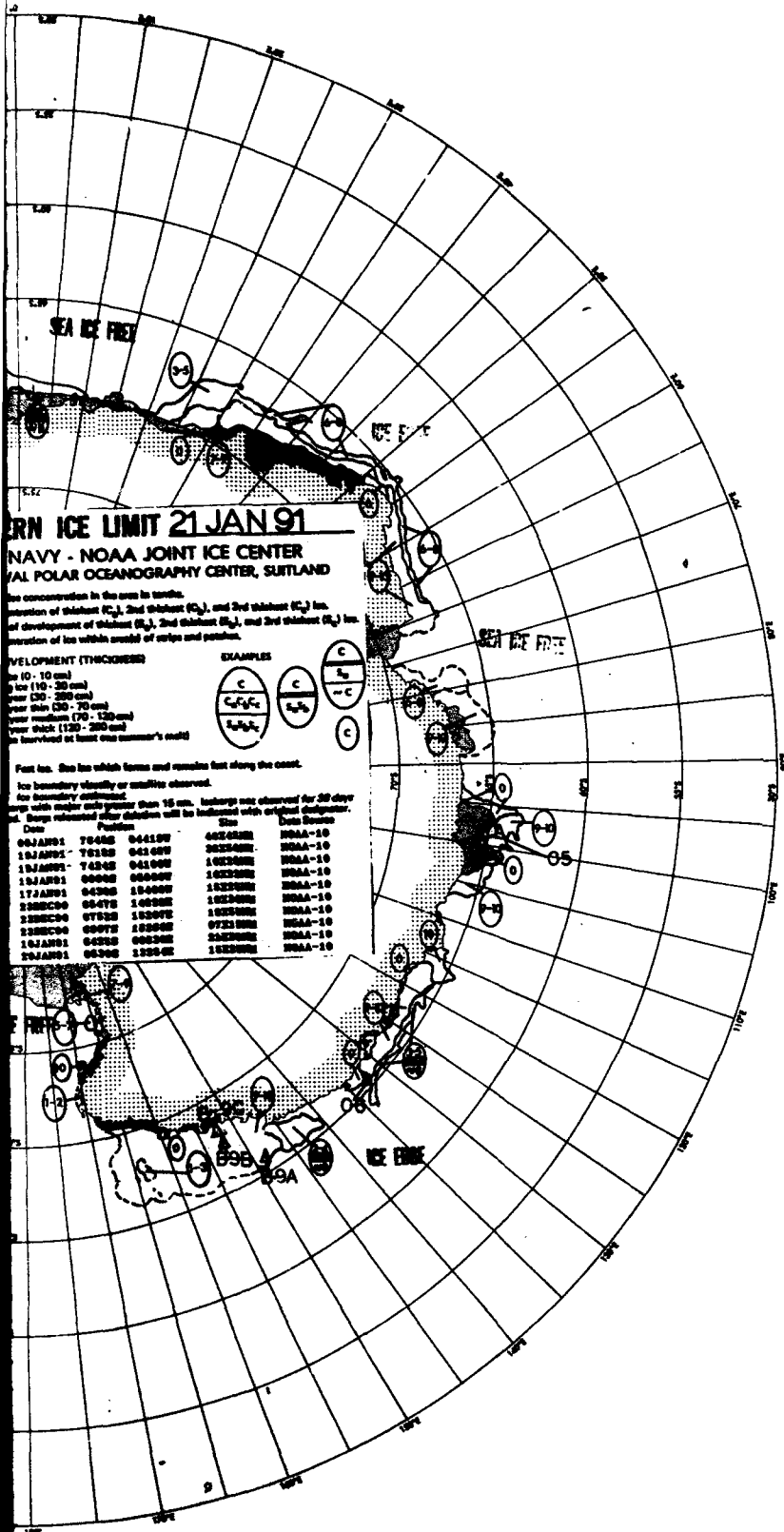


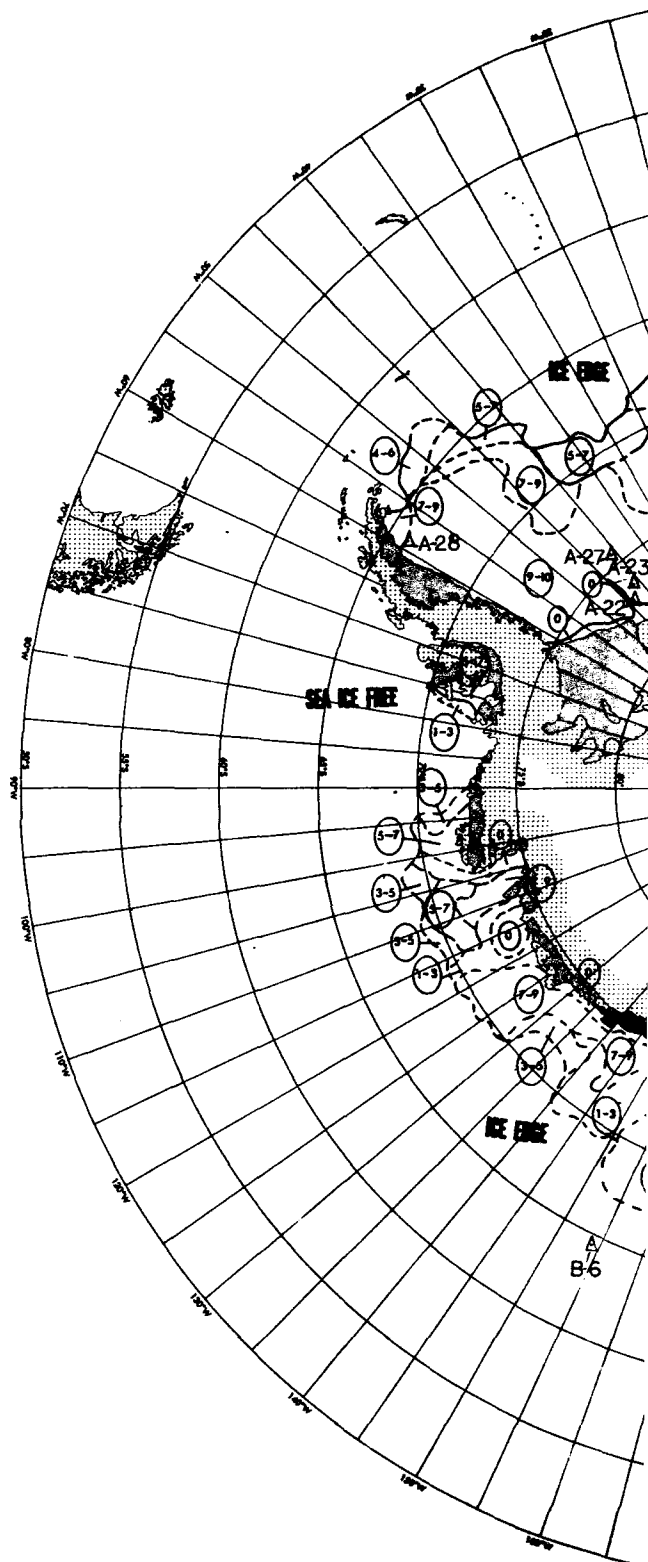


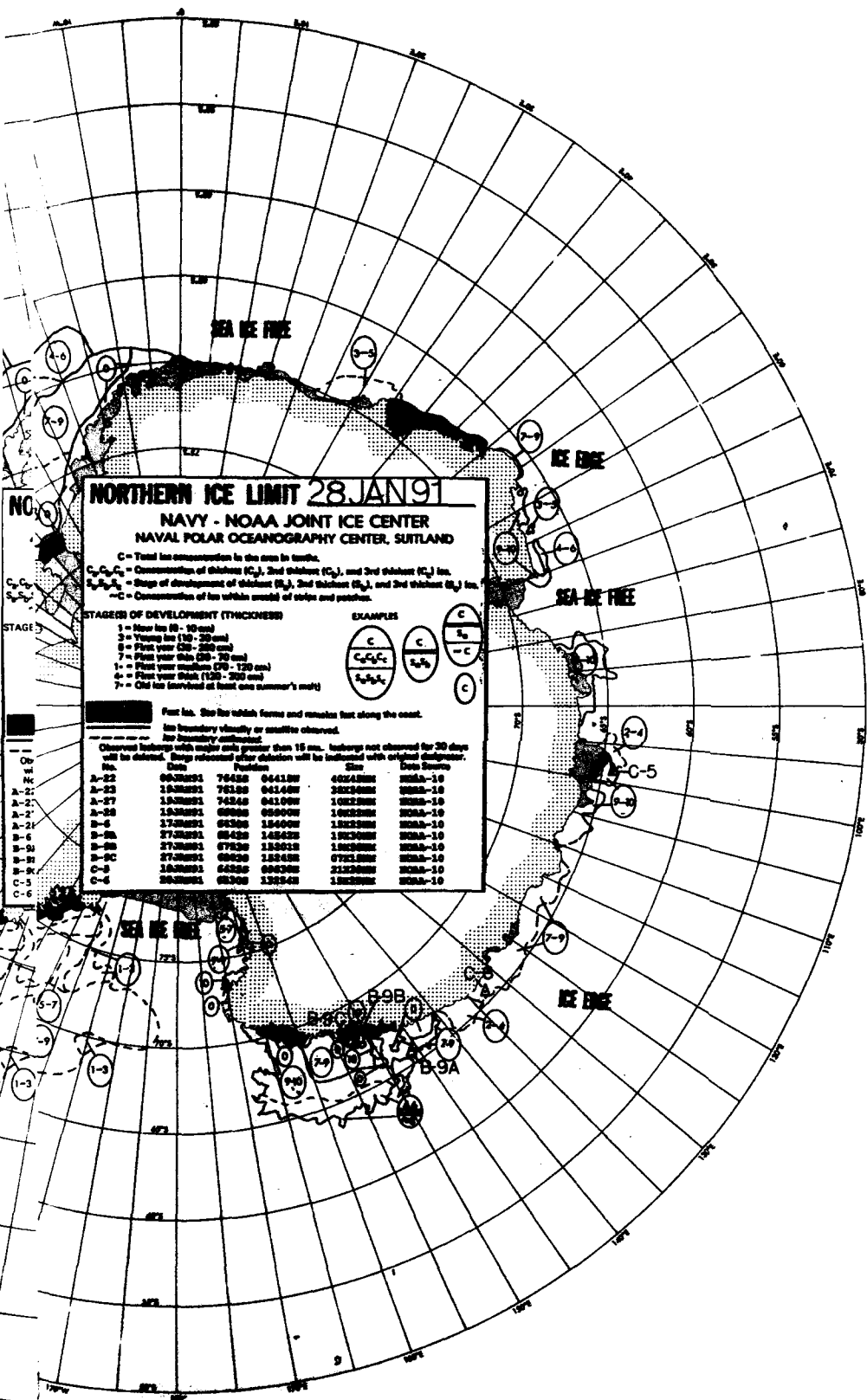


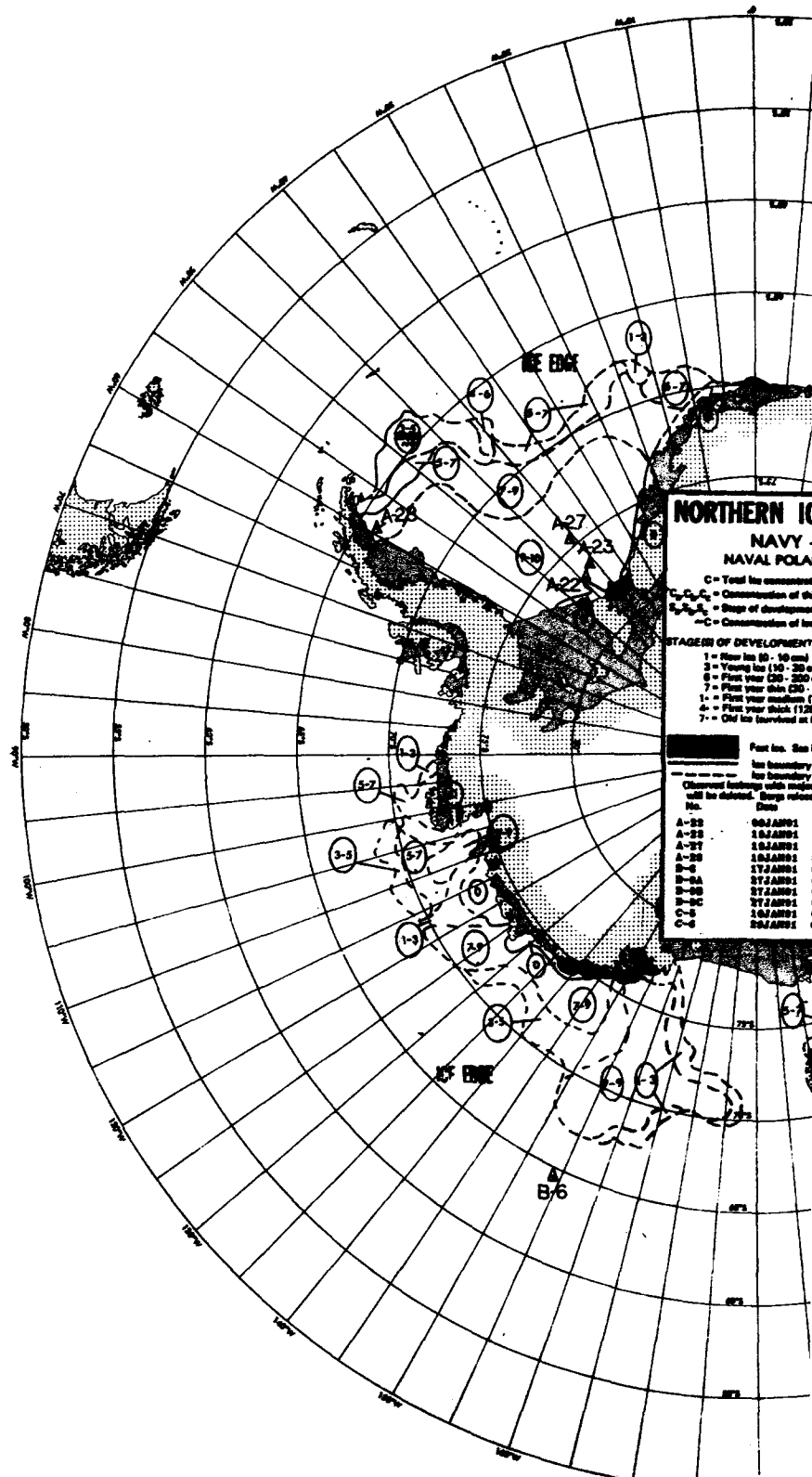


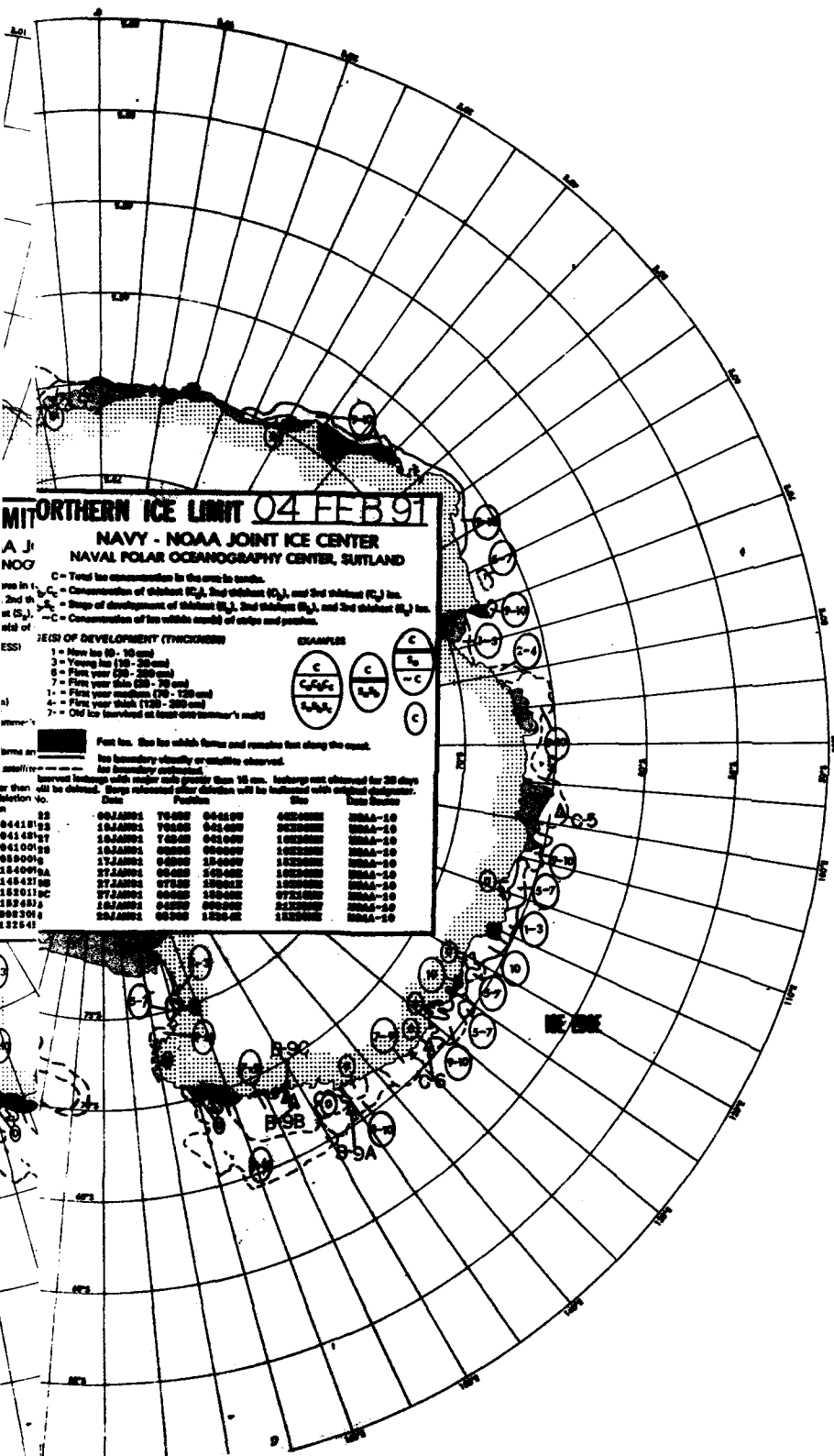


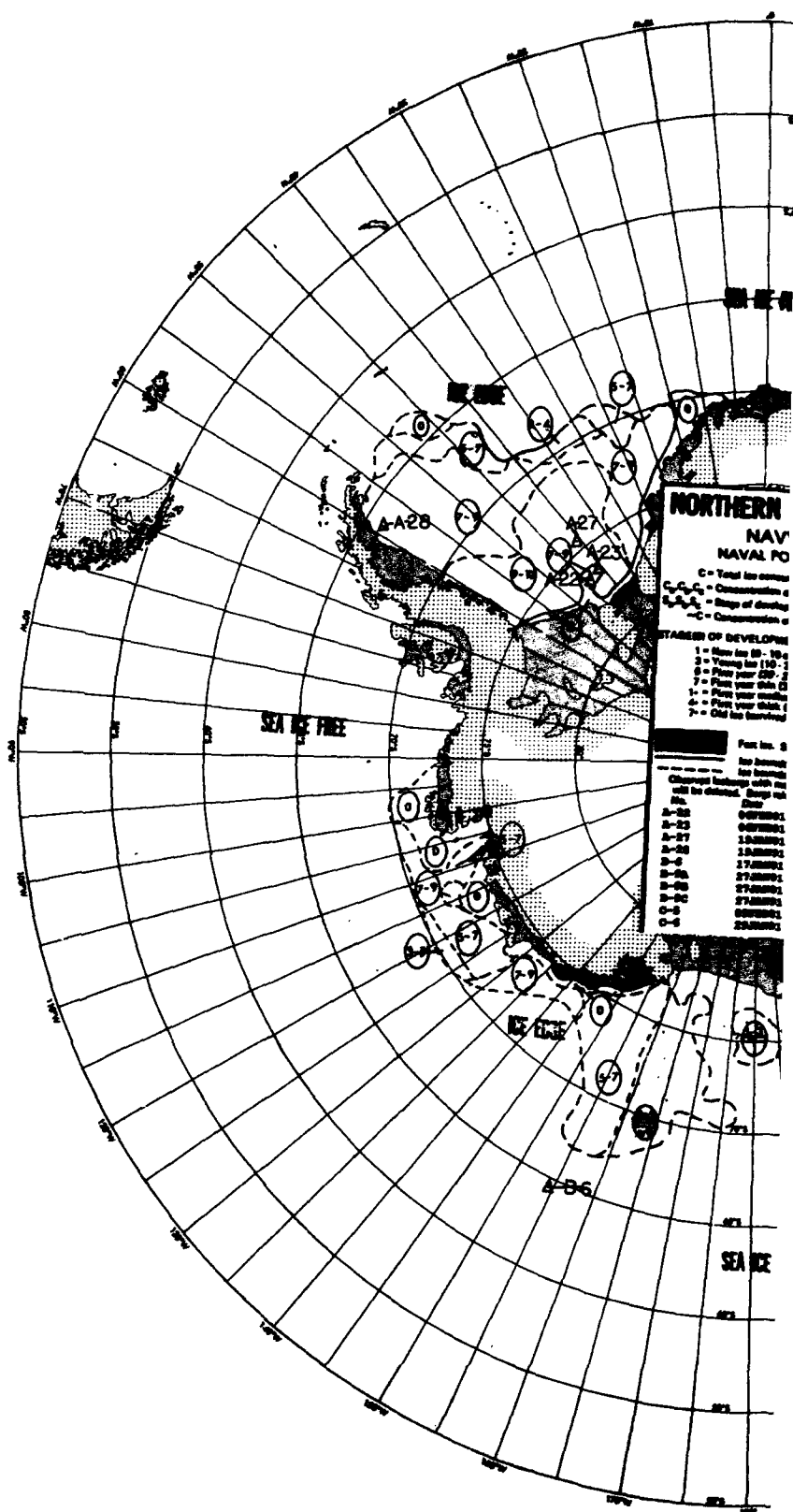


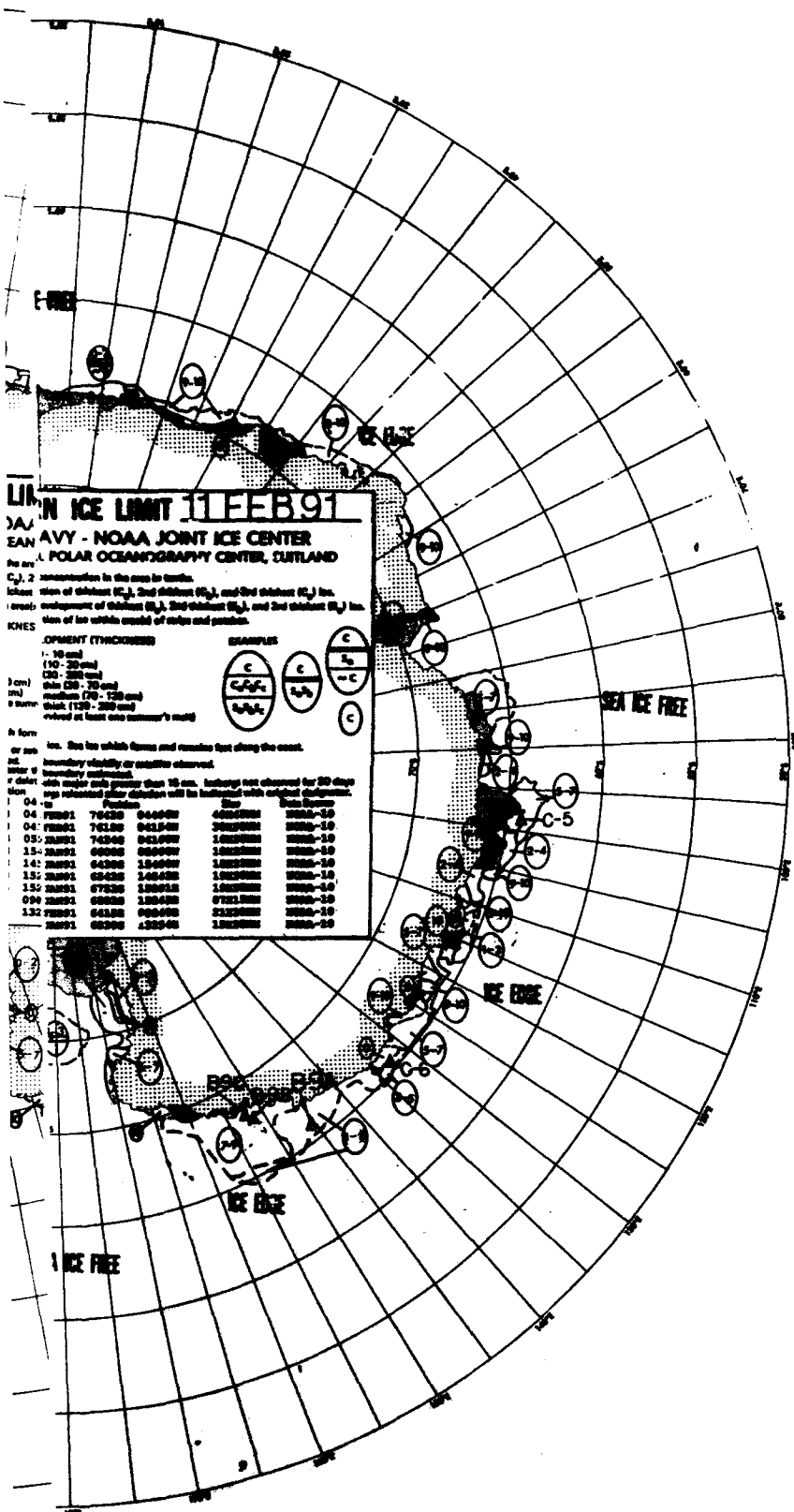


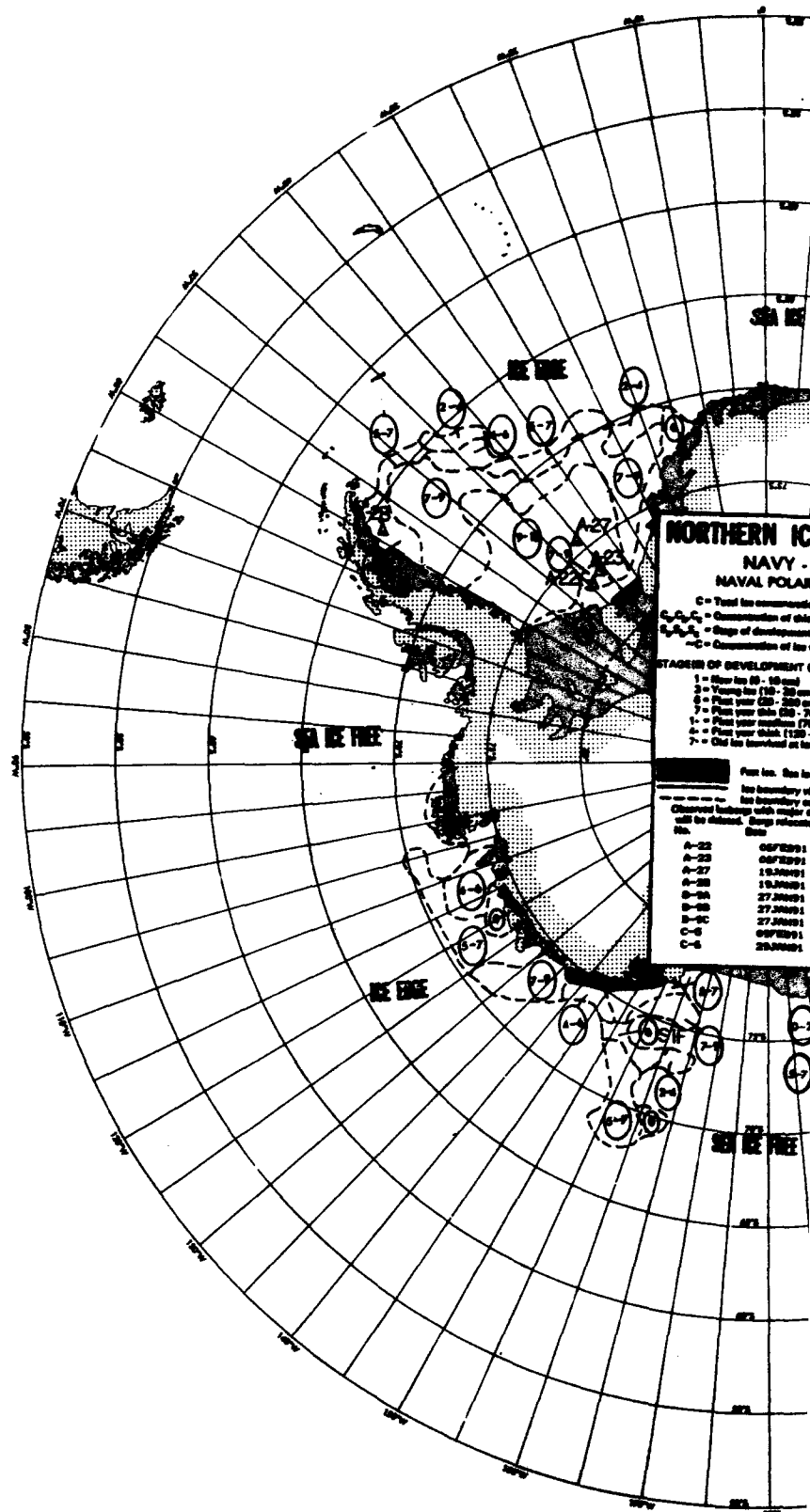


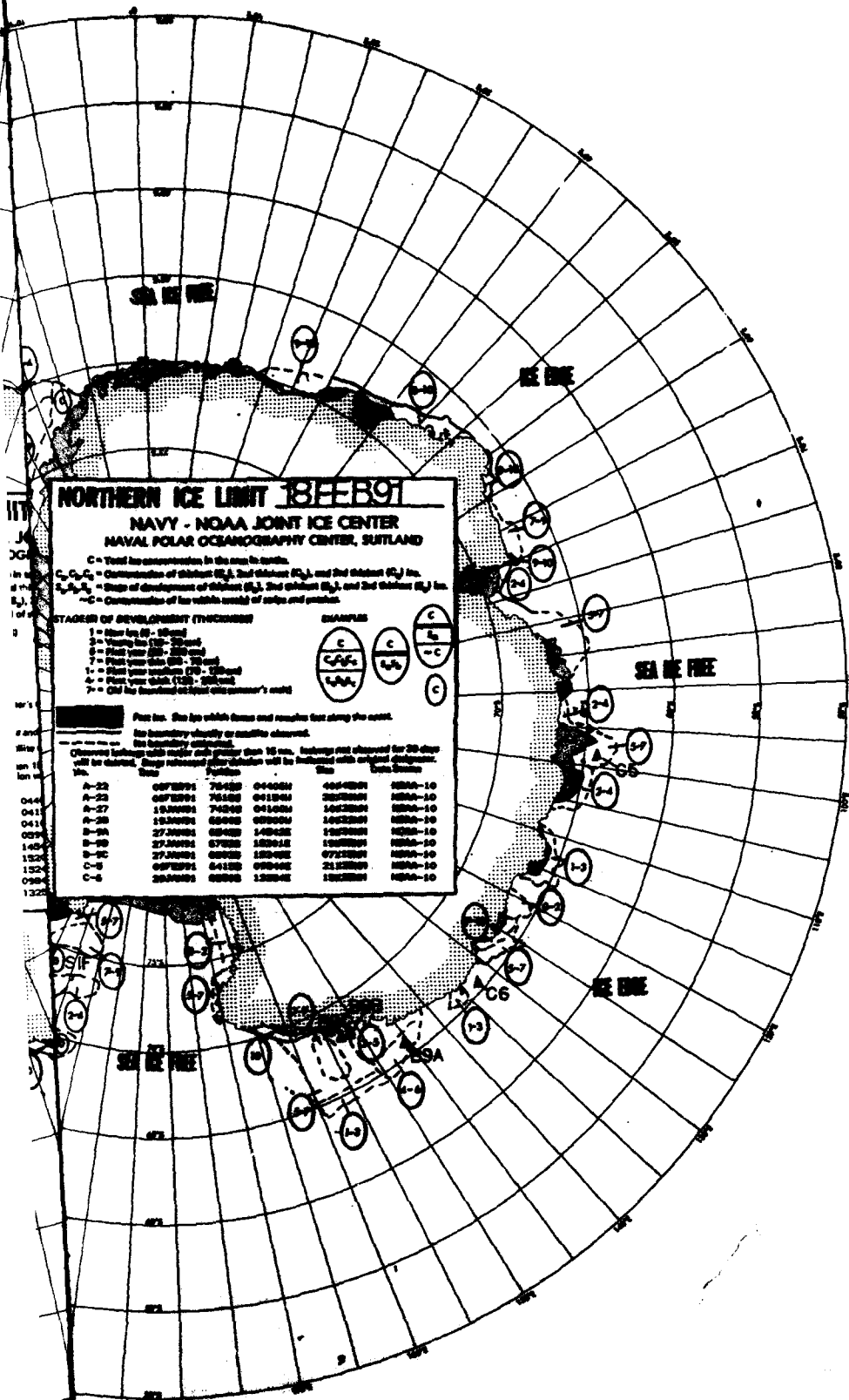












NORTHERN ICE LIMIT 18 FEB 71

NAVY - NOAA JOINT ICE CENTER
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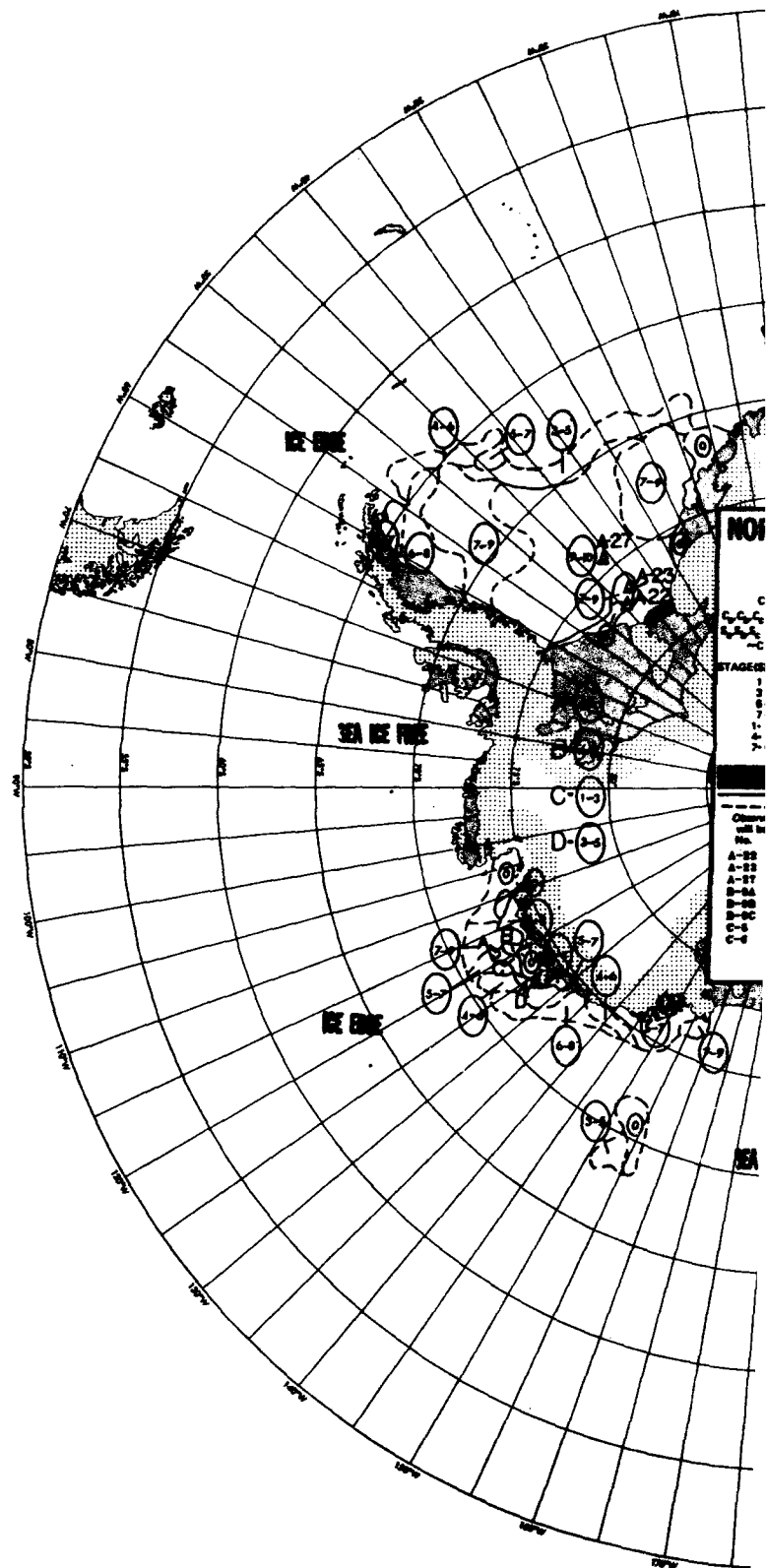
C = Total ice concentration in the area in tenths.
 C₁, C₂, C₃ = Concentration of different ice types, and different ice types.
 S₁, S₂, S₃ = Stage of development of different ice types, and different ice types.
 S₁, S₂ = Concentration of ice within limits of area and position.

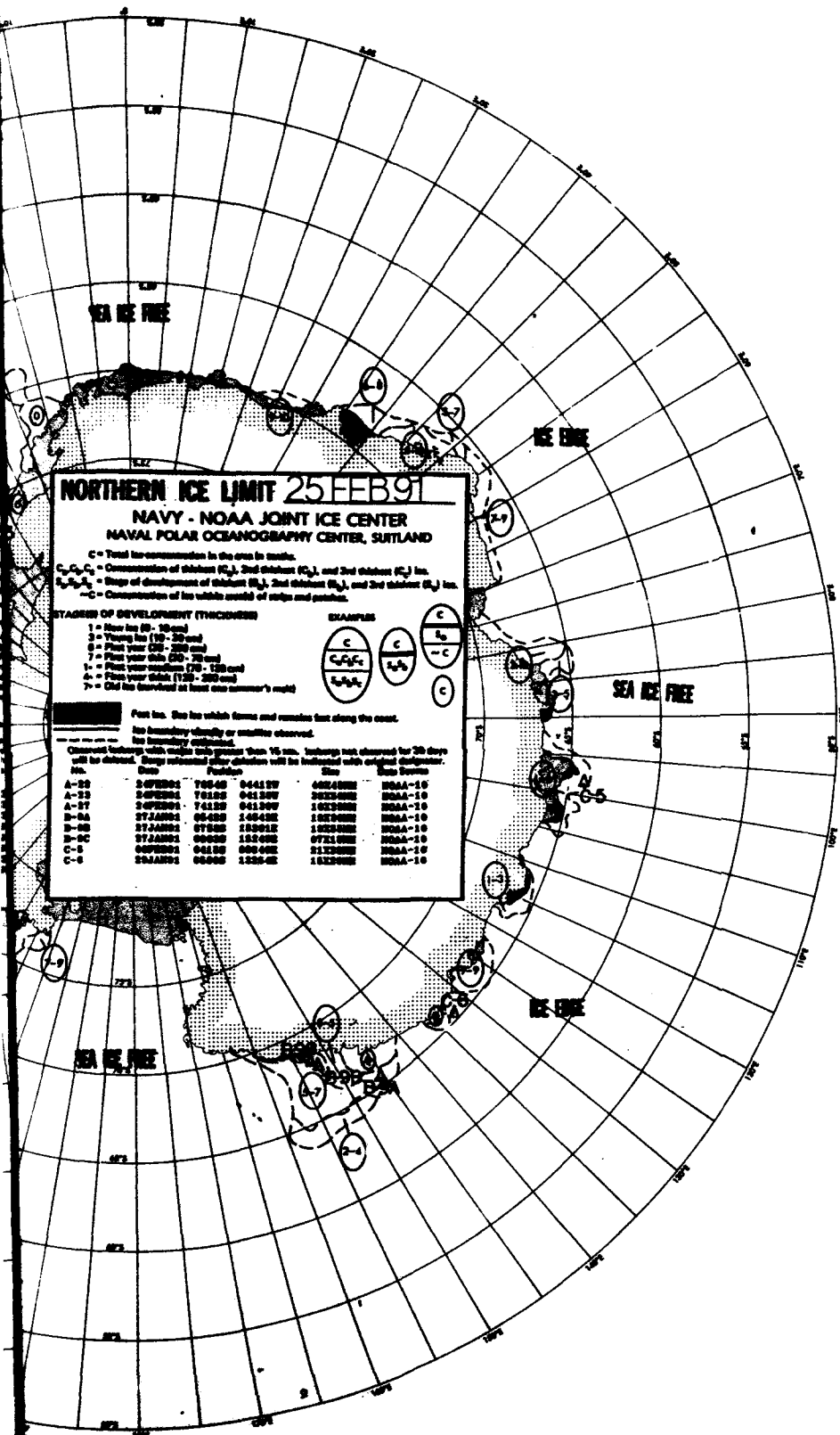
- STAGES OF DEVELOPMENT (THICKNESS)**
- 1 = New ice (0 - 10 cm)
 - 2 = Young ice (10 - 20 cm)
 - 3 = First year ice (20 - 30 cm)
 - 4 = First year ice (30 - 40 cm)
 - 5 = First year ice (40 - 50 cm)
 - 6 = First year ice (50 - 60 cm)
 - 7 = Old ice (60 cm or more)

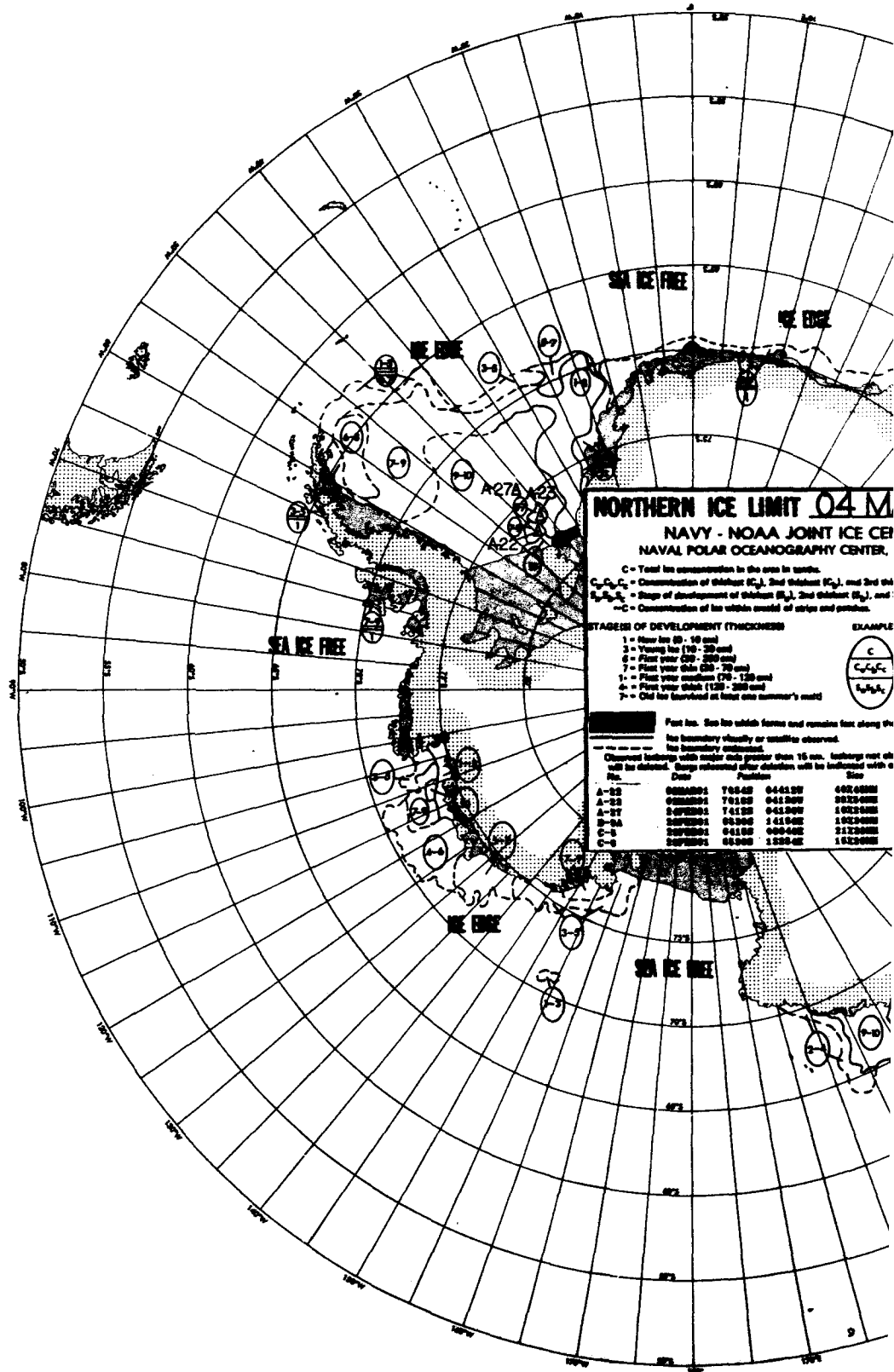
For ice, the age which forms and remains first along the coast.
 For boundary, the age which forms and remains first along the coast.

Observations taken with radar and other instruments. Iceberg not observed for 20 days.
 will be shown. Stage subsequent observations will be indicated with original diagrams.

No.	Date	Latitude	Longitude	Area	Area
A-22	08 FEB 71	76.40N	044.00W	100.00N	100.00W
A-23	08 FEB 71	76.40N	041.00W	100.00N	100.00W
A-27	10 FEB 71	74.00N	041.00W	100.00N	100.00W
A-28	10 FEB 71	68.00N	040.00W	100.00N	100.00W
B-24	27 FEB 71	68.00N	140.00E	100.00N	100.00W
B-26	27 FEB 71	67.00N	130.00E	100.00N	100.00W
B-27	27 FEB 71	67.00N	130.00E	100.00N	100.00W
C-6	08 FEB 71	64.10N	090.00E	100.00N	100.00W
C-6	20 FEB 71	68.00N	130.00E	100.00N	100.00W







9 IN ICE LIMIT 04 MAR 91

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Interpretation in the area is based on:
plan of thickness (C_1), 2nd thickness (C_2), and 3rd thickness (C_3) line.
development of thickness (C_1), 2nd thickness (C_2), and 3rd thickness (C_3) line.
plan of line within circle of circle and position.

CONCENTRATION (THICKNESS)

0 - 10 cm
(10 - 30 cm)
(30 - 50 cm)
thin (50 - 70 cm)
medium (70 - 100 cm)
thick (100 - 200 cm)
broken at least one summer's melt

EXAMPLES

$\frac{C}{C_1 C_2 C_3}$ $\frac{C}{C_1 C_2}$ $\frac{C}{C_1}$ $\frac{C}{C_2}$ $\frac{C}{C_3}$

1 line. See line which forms and remains last along the coast.
boundary visually or satellite observed.

30 days estimated.
with water and greater than 10 cm. Icebergs not observed for 30 days
large estimated after duration will be indicated with original diagram.

Source	Position	Size	Date
10	68001 78000 040100	0024000	1988-10
10	68001 78100 041000	0025000	1988-10
10	72001 74100 041000	1002000	1988-10
10	72001 74100 041000	1002000	1988-10
10	72001 68000 141000	1002000	1988-10
10	72001 68100 040000	0112000	1988-10
10	72001 68000 120000	1002000	1988-10

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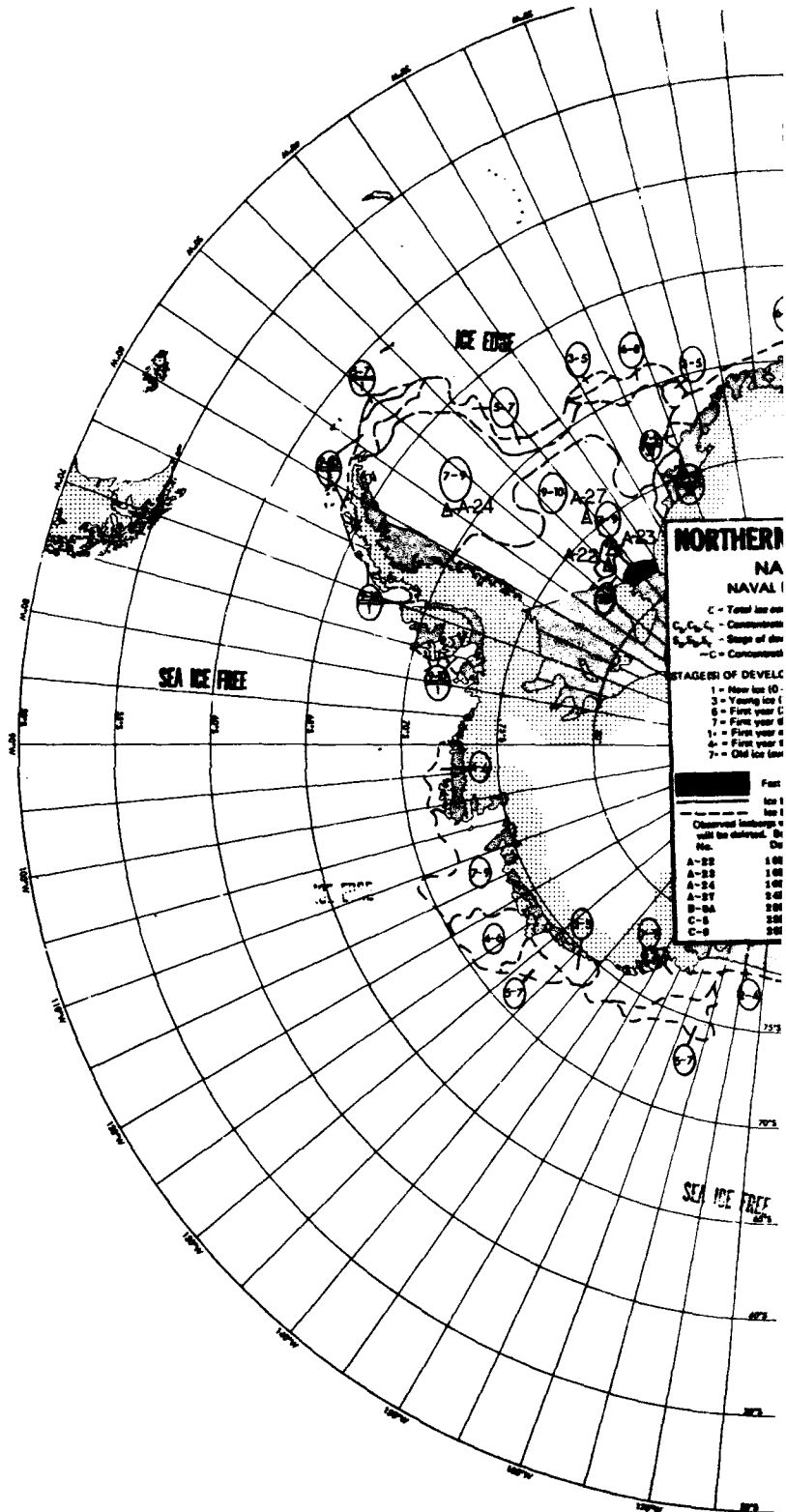
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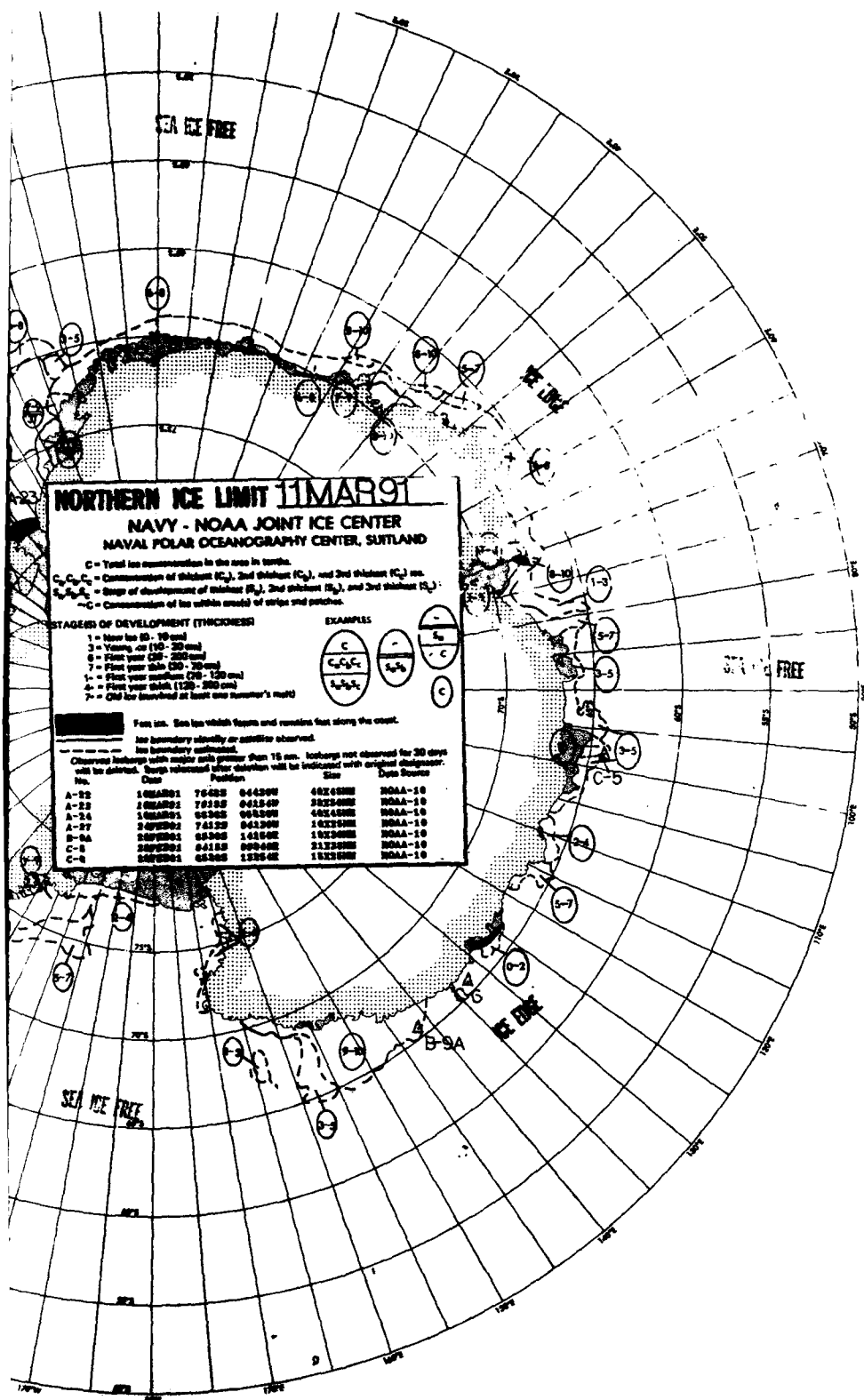
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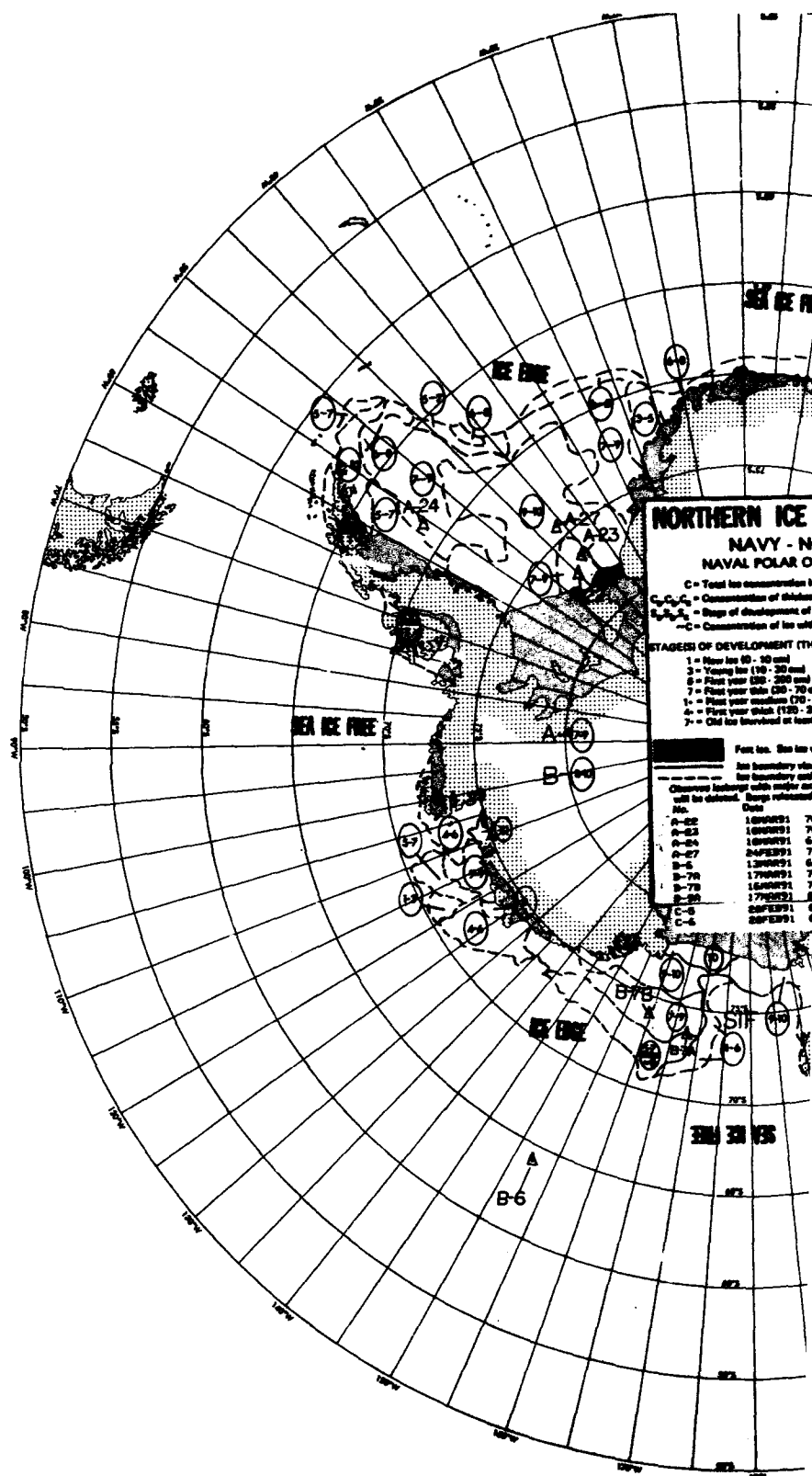
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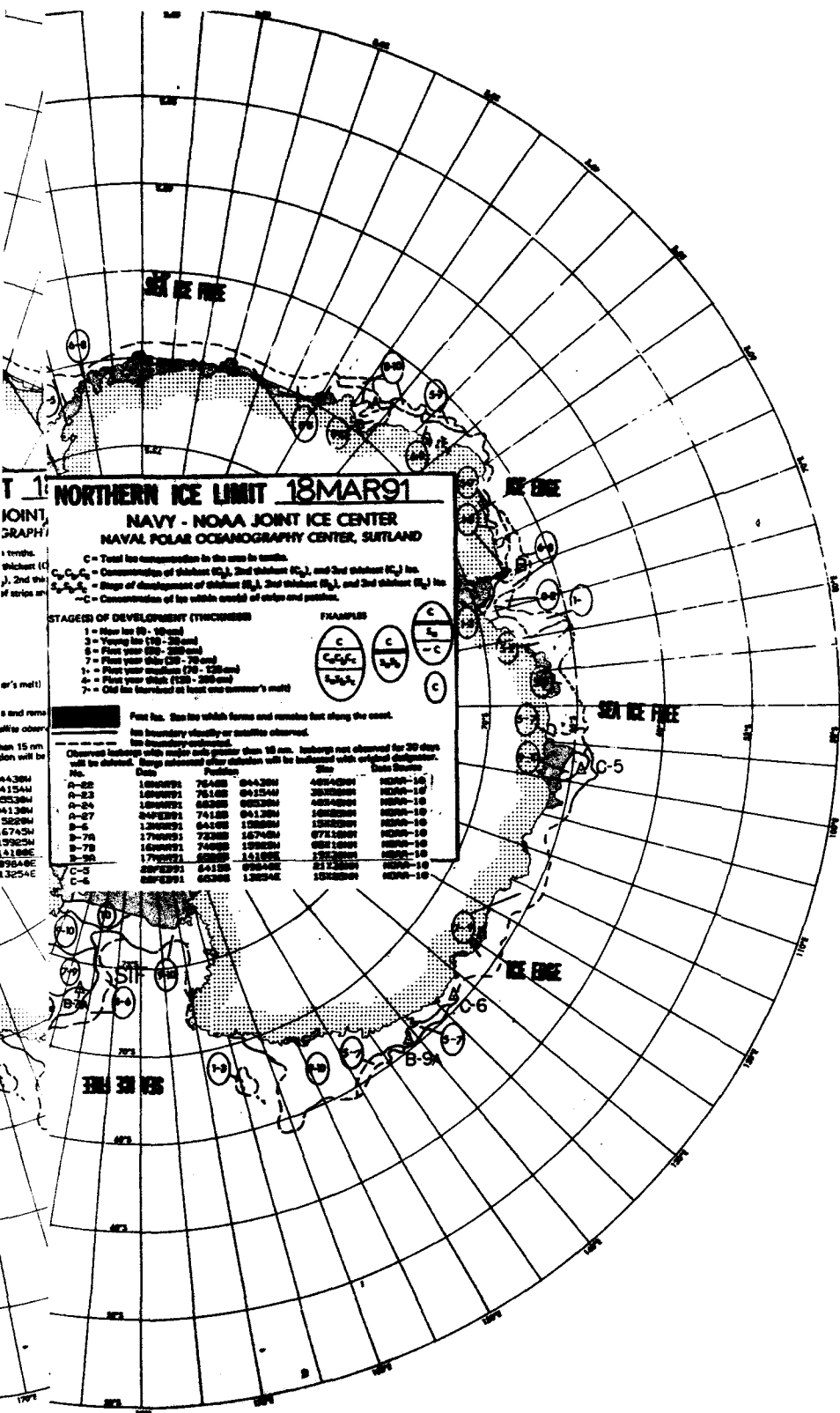
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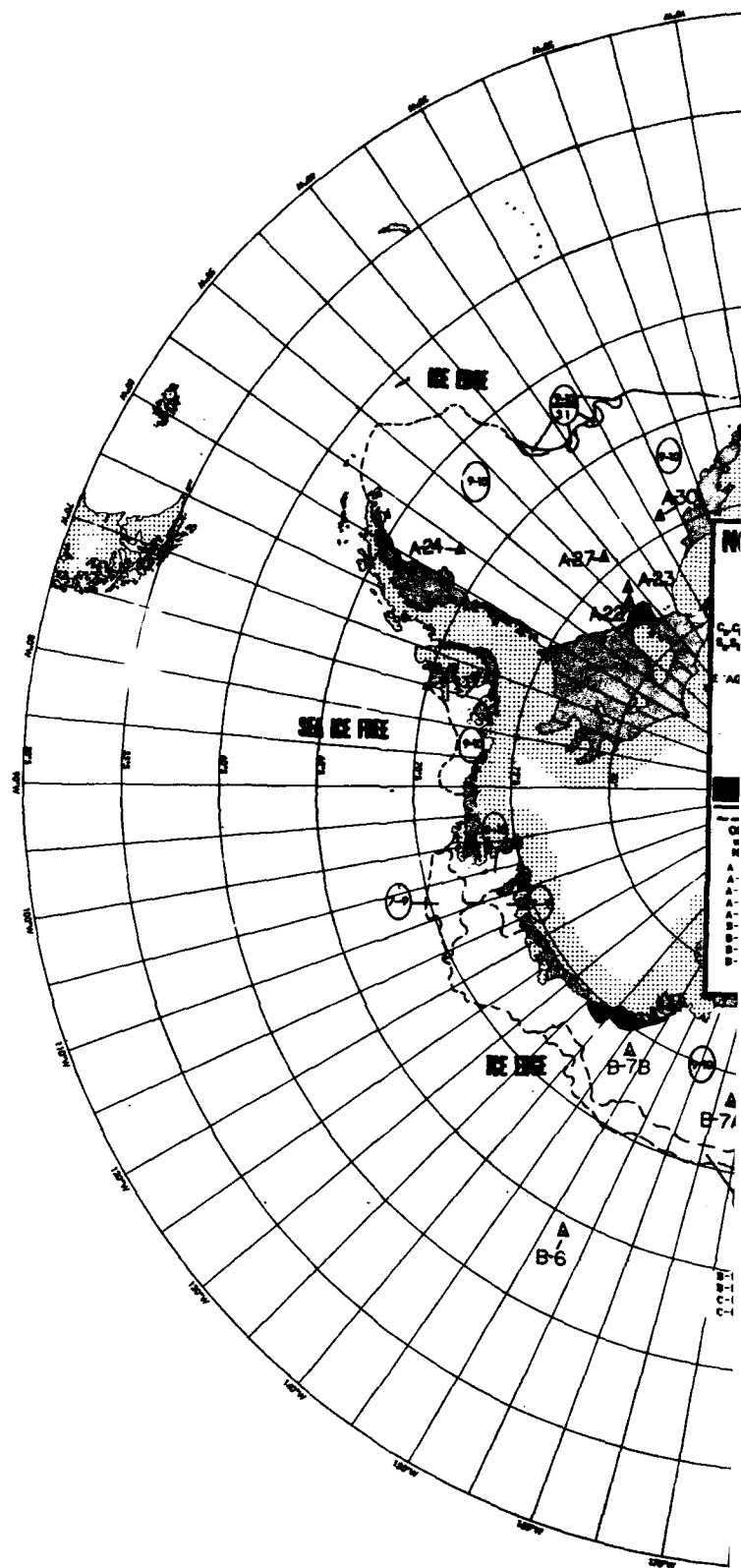
10001 68000 120000 1002000 1988-10

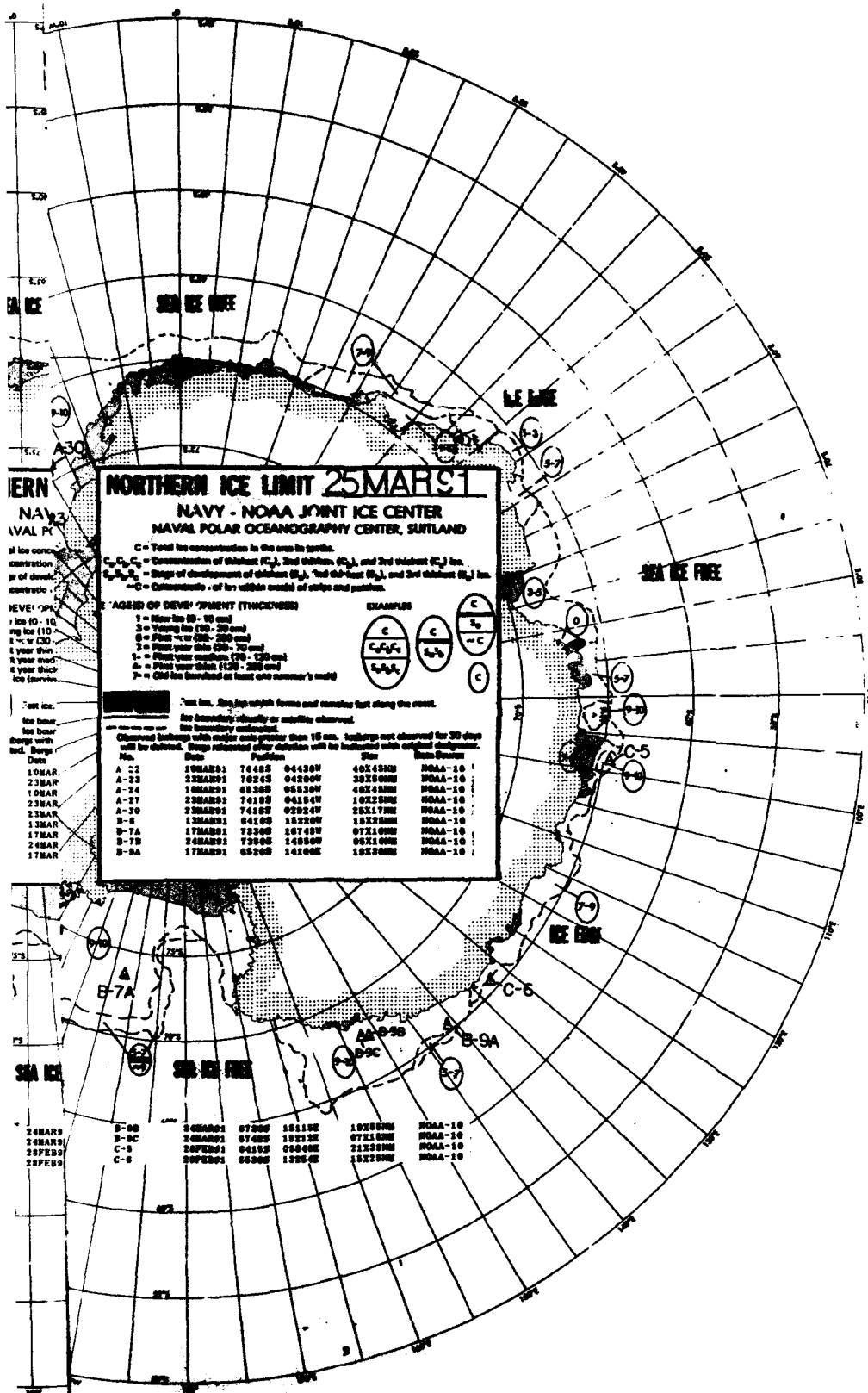












NORTHERN ICE LIMIT 25 MAR 51
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C = Total ice concentration in the area in percent.
 C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
 S₁, S₂, S₃ = Stages of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
 C₁ = Estimated % of ice within bounds of circles and polygons.

AGES OF DEVELOPMENT (THICKNESS)

1 = Young ice (50 - 100 cm)
 2 = First year ice (100 - 200 cm)
 3 = First year ice (200 - 300 cm)
 4 = First year ice (300 - 400 cm)
 5 = First year ice (400 - 500 cm)
 6 = First year ice (500 - 600 cm)
 7 = Old ice (600 cm and over)

EXAMPLES

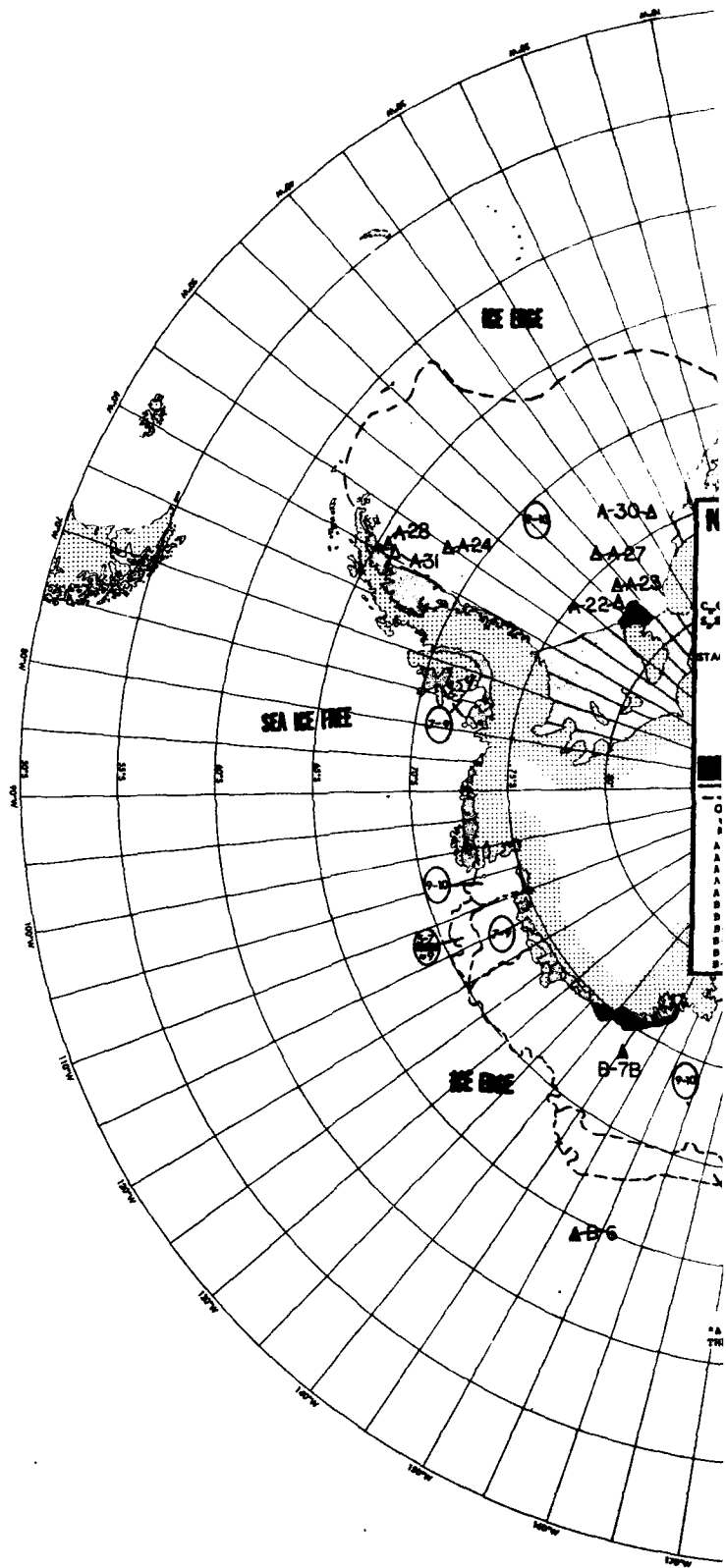
$\frac{C}{C_1 C_2 C_3}$ $\frac{C}{S_1 S_2 S_3}$ $\frac{C}{C_1 S_1}$ $\frac{C}{C_2 S_2}$ $\frac{C}{C_3 S_3}$ $\frac{C}{C_1 C_2 C_3 S_1 S_2 S_3}$

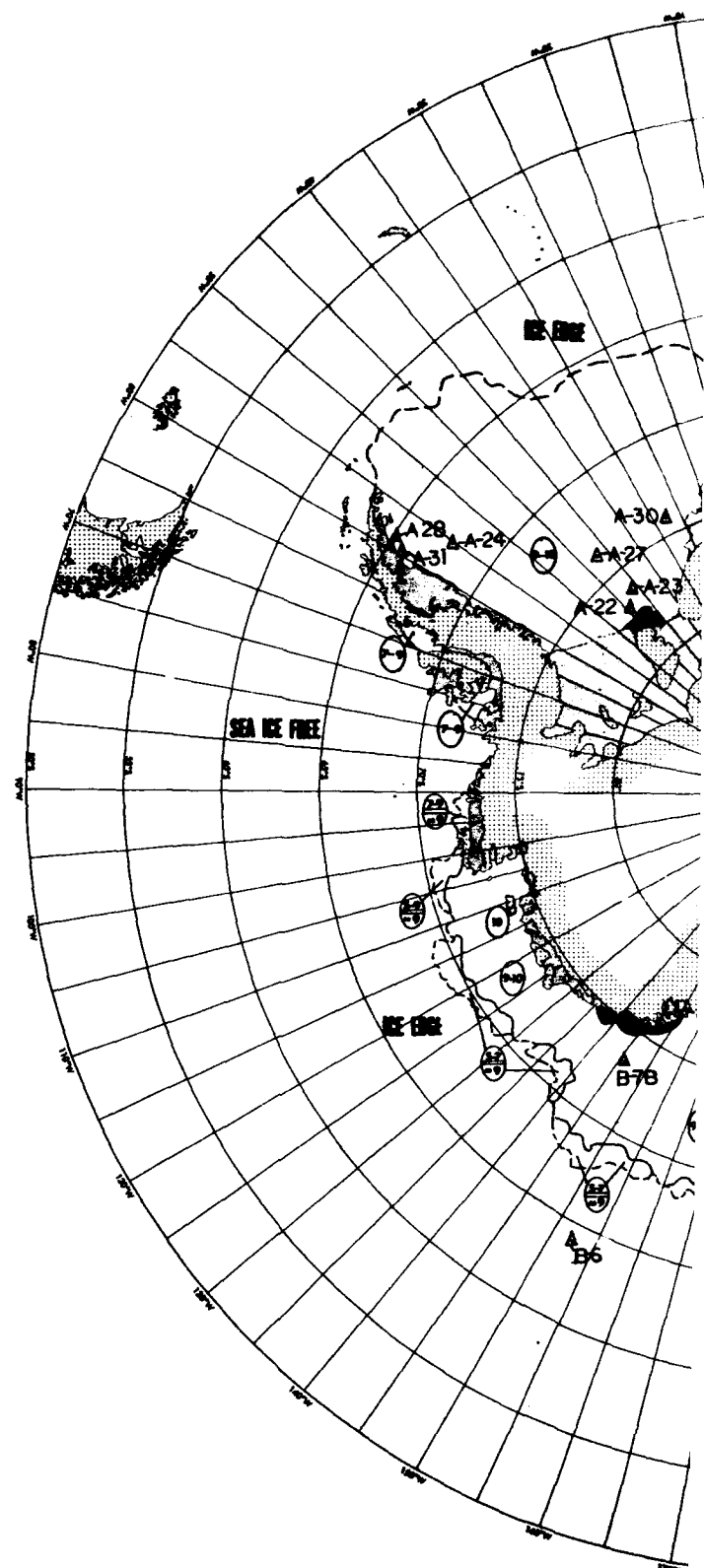
NOTES: 1. Icebergs which form and remain fast along the coast.
 2. Icebergs which are not observed.
 3. Icebergs which are not observed for 30 days will be deleted. Bergs observed after deletion will be indicated with original designation.

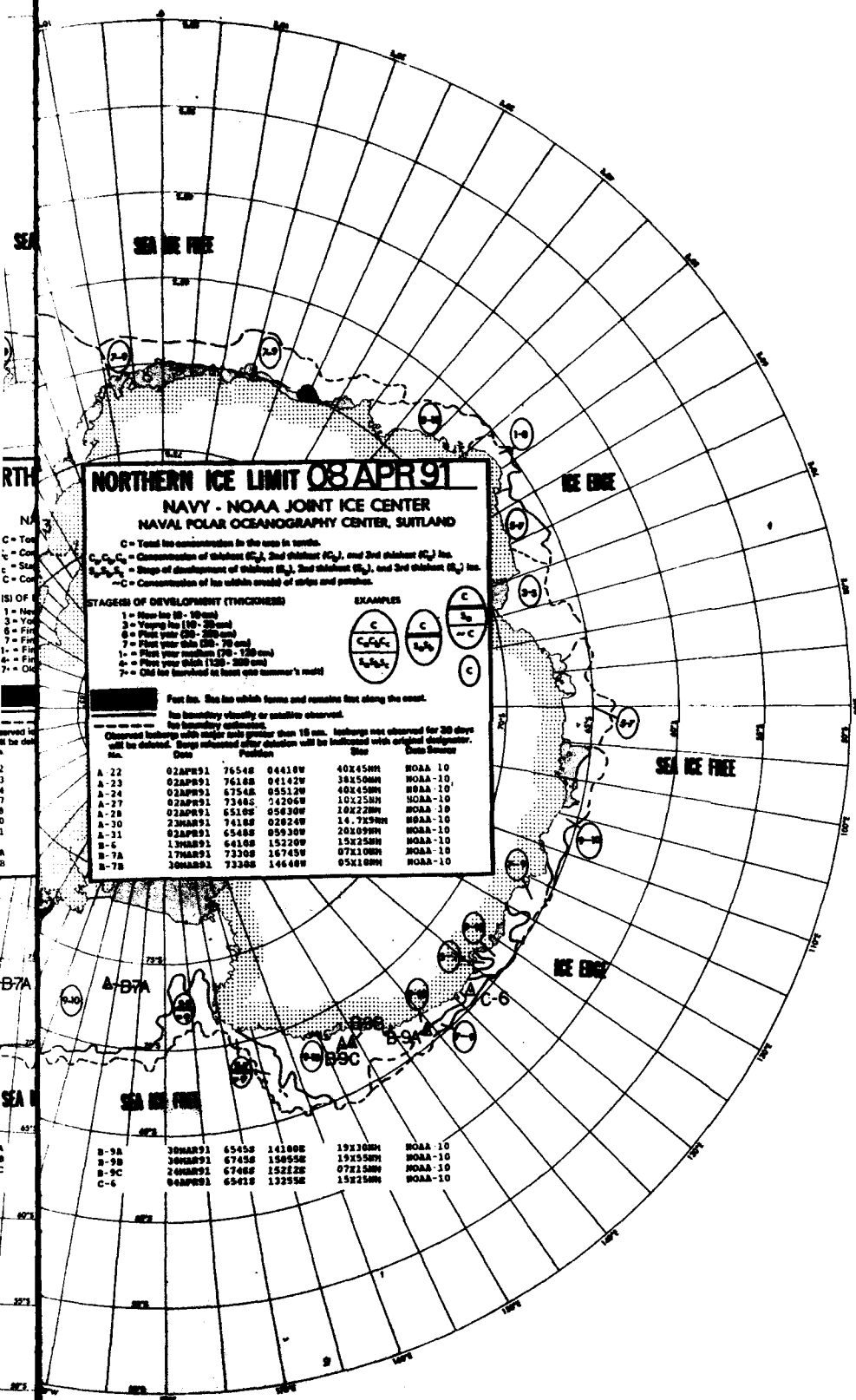
Date	No.	Lat	Long	Designation	Remarks	
10 MAR	A-22	19 MAR 51	76 48 S	044 30 W	40 X 40 NM	NOAA-10
22 MAR	A-23	23 MAR 51	76 24 S	042 00 W	30 X 30 NM	NOAA-10
10 MAR	A-24	10 MAR 51	68 30 S	055 30 W	40 X 40 NM	NOAA-10
23 MAR	A-27	23 MAR 51	76 10 S	041 10 W	10 X 10 NM	NOAA-10
23 MAR	A-30	23 MAR 51	74 10 S	070 00 W	30 X 17 NM	NOAA-10
13 MAR	B-6	13 MAR 51	64 10 S	152 00 W	15 X 10 NM	NOAA-10
17 MAR	B-7A	17 MAR 51	72 30 S	157 45 W	07 X 10 NM	NOAA-10
24 MAR	B-7B	24 MAR 51	73 00 S	148 00 W	05 X 10 NM	NOAA-10
17 MAR	B-9A	17 MAR 51	68 30 S	141 00 E	10 X 10 NM	NOAA-10

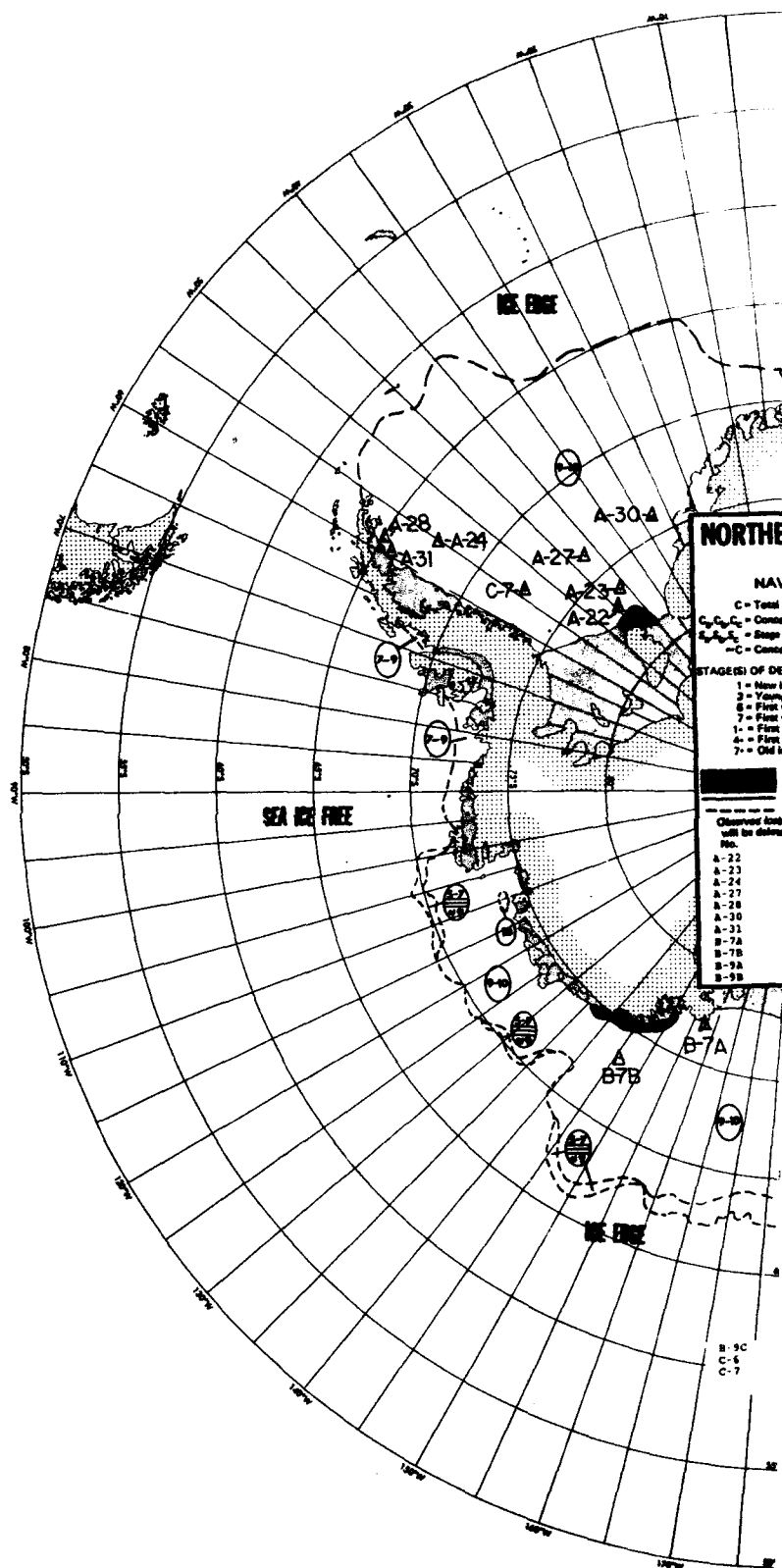
10 MAR	A-22	19 MAR 51	76 48 S	044 30 W	40 X 40 NM	NOAA-10
22 MAR	A-23	23 MAR 51	76 24 S	042 00 W	30 X 30 NM	NOAA-10
10 MAR	A-24	10 MAR 51	68 30 S	055 30 W	40 X 40 NM	NOAA-10
23 MAR	A-27	23 MAR 51	76 10 S	041 10 W	10 X 10 NM	NOAA-10
23 MAR	A-30	23 MAR 51	74 10 S	070 00 W	30 X 17 NM	NOAA-10
13 MAR	B-6	13 MAR 51	64 10 S	152 00 W	15 X 10 NM	NOAA-10
17 MAR	B-7A	17 MAR 51	72 30 S	157 45 W	07 X 10 NM	NOAA-10
24 MAR	B-7B	24 MAR 51	73 00 S	148 00 W	05 X 10 NM	NOAA-10
17 MAR	B-9A	17 MAR 51	68 30 S	141 00 E	10 X 10 NM	NOAA-10

24 MAR 51	B-80	24 MAR 51	67 30 S	151 10 E	10 X 10 NM	NOAA-10
24 MAR 51	B-9C	24 MAR 51	67 40 S	151 10 E	07 X 10 NM	NOAA-10
28 FEB 51	C-5	28 FEB 51	64 10 S	090 00 E	21 X 20 NM	NOAA-10
28 FEB 51	C-6	28 FEB 51	66 30 S	150 00 E	10 X 10 NM	NOAA-10









SEA ICE FREE

ICE FREE

SEA ICE FREE

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SEA ICE FREE

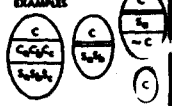
NORTHERN ICE LIMIT 15 APR 91

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C = Total ice concentration in the area in tenths.
 C_1, C_2, C_3 = Concentration of thickens (H_1) , 2nd thickest (H_2) , and 3rd thickest (H_3) ice.
 C_1, C_2, C_3 = Range of development of thickens (H_1) , 2nd thickest (H_2) , and 3rd thickest (H_3) ice.
 C_1, C_2, C_3 = Concentration of ice within circle of circle and points.

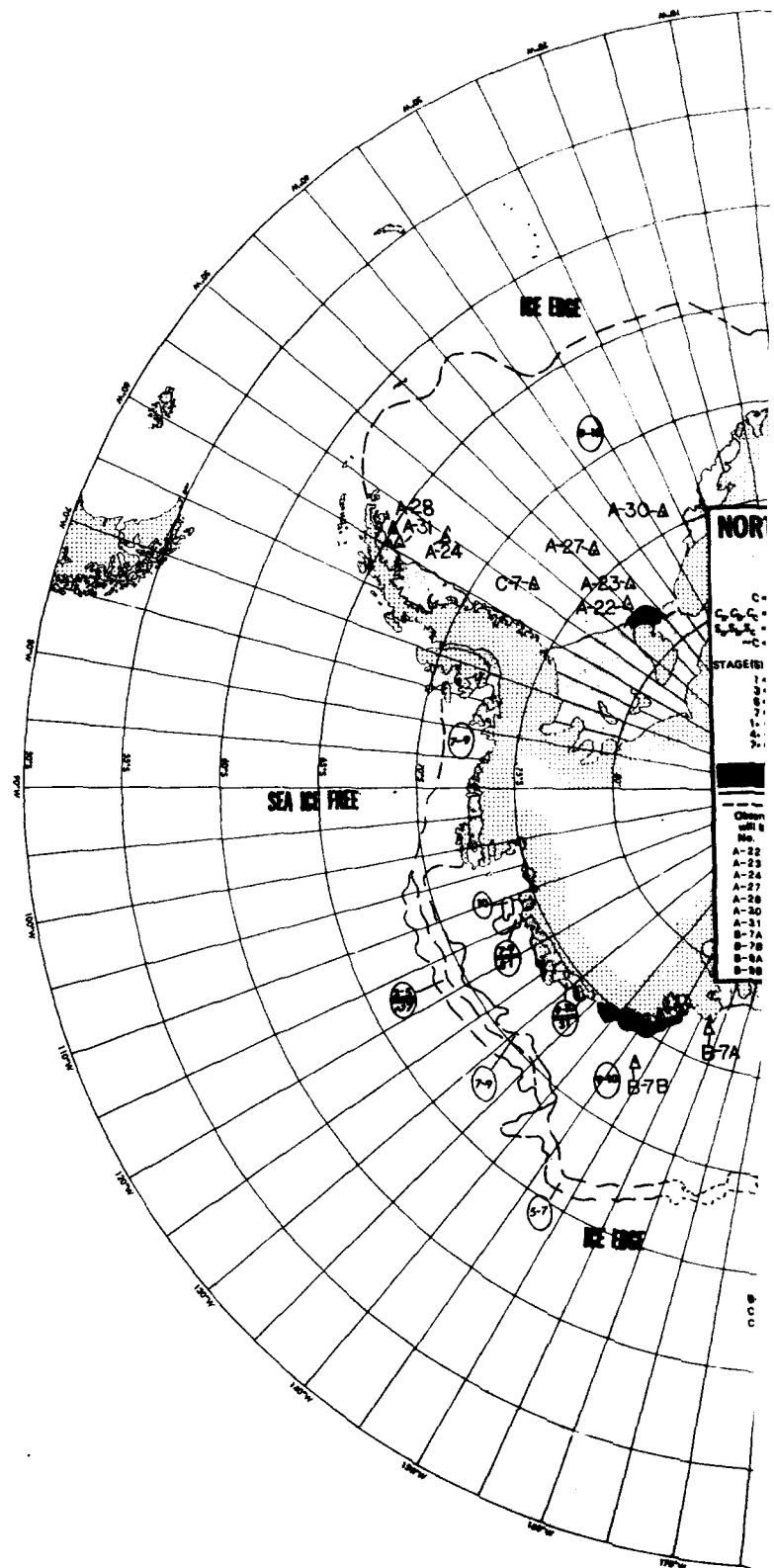
- STAGES OF DEVELOPMENT (THICKNESS)
- 1 = New ice (0 - 10 cm)
 - 2 = Young ice (10 - 20 cm)
 - 3 = First year (20 - 30 cm)
 - 4 = First year (30 - 40 cm)
 - 5 = First year (40 - 50 cm)
 - 6 = First year (50 - 60 cm)
 - 7 = First year (60 - 70 cm)
 - 8 = First year (70 - 80 cm)
 - 9 = First year (80 - 90 cm)
 - 10 = First year (90 - 100 cm)
 - 11 = First year (100 - 110 cm)
 - 12 = First year (110 - 120 cm)
 - 13 = First year (120 - 130 cm)
 - 14 = First year (130 - 140 cm)
 - 15 = First year (140 - 150 cm)
 - 16 = First year (150 - 160 cm)
 - 17 = First year (160 - 170 cm)
 - 18 = First year (170 - 180 cm)
 - 19 = First year (180 - 190 cm)
 - 20 = First year (190 - 200 cm)
 - 21 = First year (200 - 210 cm)
 - 22 = First year (210 - 220 cm)
 - 23 = First year (220 - 230 cm)
 - 24 = First year (230 - 240 cm)
 - 25 = First year (240 - 250 cm)
 - 26 = First year (250 - 260 cm)
 - 27 = First year (260 - 270 cm)
 - 28 = First year (270 - 280 cm)
 - 29 = First year (280 - 290 cm)
 - 30 = First year (290 - 300 cm)
 - 31 = First year (300 - 310 cm)
 - 32 = First year (310 - 320 cm)
 - 33 = First year (320 - 330 cm)
 - 34 = First year (330 - 340 cm)
 - 35 = First year (340 - 350 cm)
 - 36 = First year (350 - 360 cm)
 - 37 = First year (360 - 370 cm)
 - 38 = First year (370 - 380 cm)
 - 39 = First year (380 - 390 cm)
 - 40 = First year (390 - 400 cm)
 - 41 = First year (400 - 410 cm)
 - 42 = First year (410 - 420 cm)
 - 43 = First year (420 - 430 cm)
 - 44 = First year (430 - 440 cm)
 - 45 = First year (440 - 450 cm)
 - 46 = First year (450 - 460 cm)
 - 47 = First year (460 - 470 cm)
 - 48 = First year (470 - 480 cm)
 - 49 = First year (480 - 490 cm)
 - 50 = First year (490 - 500 cm)
 - 51 = First year (500 - 510 cm)
 - 52 = First year (510 - 520 cm)
 - 53 = First year (520 - 530 cm)
 - 54 = First year (530 - 540 cm)
 - 55 = First year (540 - 550 cm)
 - 56 = First year (550 - 560 cm)
 - 57 = First year (560 - 570 cm)
 - 58 = First year (570 - 580 cm)
 - 59 = First year (580 - 590 cm)
 - 60 = First year (590 - 600 cm)
 - 61 = First year (600 - 610 cm)
 - 62 = First year (610 - 620 cm)
 - 63 = First year (620 - 630 cm)
 - 64 = First year (630 - 640 cm)
 - 65 = First year (640 - 650 cm)
 - 66 = First year (650 - 660 cm)
 - 67 = First year (660 - 670 cm)
 - 68 = First year (670 - 680 cm)
 - 69 = First year (680 - 690 cm)
 - 70 = First year (690 - 700 cm)
 - 71 = First year (700 - 710 cm)
 - 72 = First year (710 - 720 cm)
 - 73 = First year (720 - 730 cm)
 - 74 = First year (730 - 740 cm)
 - 75 = First year (740 - 750 cm)
 - 76 = First year (750 - 760 cm)
 - 77 = First year (760 - 770 cm)
 - 78 = First year (770 - 780 cm)
 - 79 = First year (780 - 790 cm)
 - 80 = First year (790 - 800 cm)
 - 81 = First year (800 - 810 cm)
 - 82 = First year (810 - 820 cm)
 - 83 = First year (820 - 830 cm)
 - 84 = First year (830 - 840 cm)
 - 85 = First year (840 - 850 cm)
 - 86 = First year (850 - 860 cm)
 - 87 = First year (860 - 870 cm)
 - 88 = First year (870 - 880 cm)
 - 89 = First year (880 - 890 cm)
 - 90 = First year (890 - 900 cm)
 - 91 = First year (900 - 910 cm)
 - 92 = First year (910 - 920 cm)
 - 93 = First year (920 - 930 cm)
 - 94 = First year (930 - 940 cm)
 - 95 = First year (940 - 950 cm)
 - 96 = First year (950 - 960 cm)
 - 97 = First year (960 - 970 cm)
 - 98 = First year (970 - 980 cm)
 - 99 = First year (980 - 990 cm)
 - 100 = First year (990 - 1000 cm)

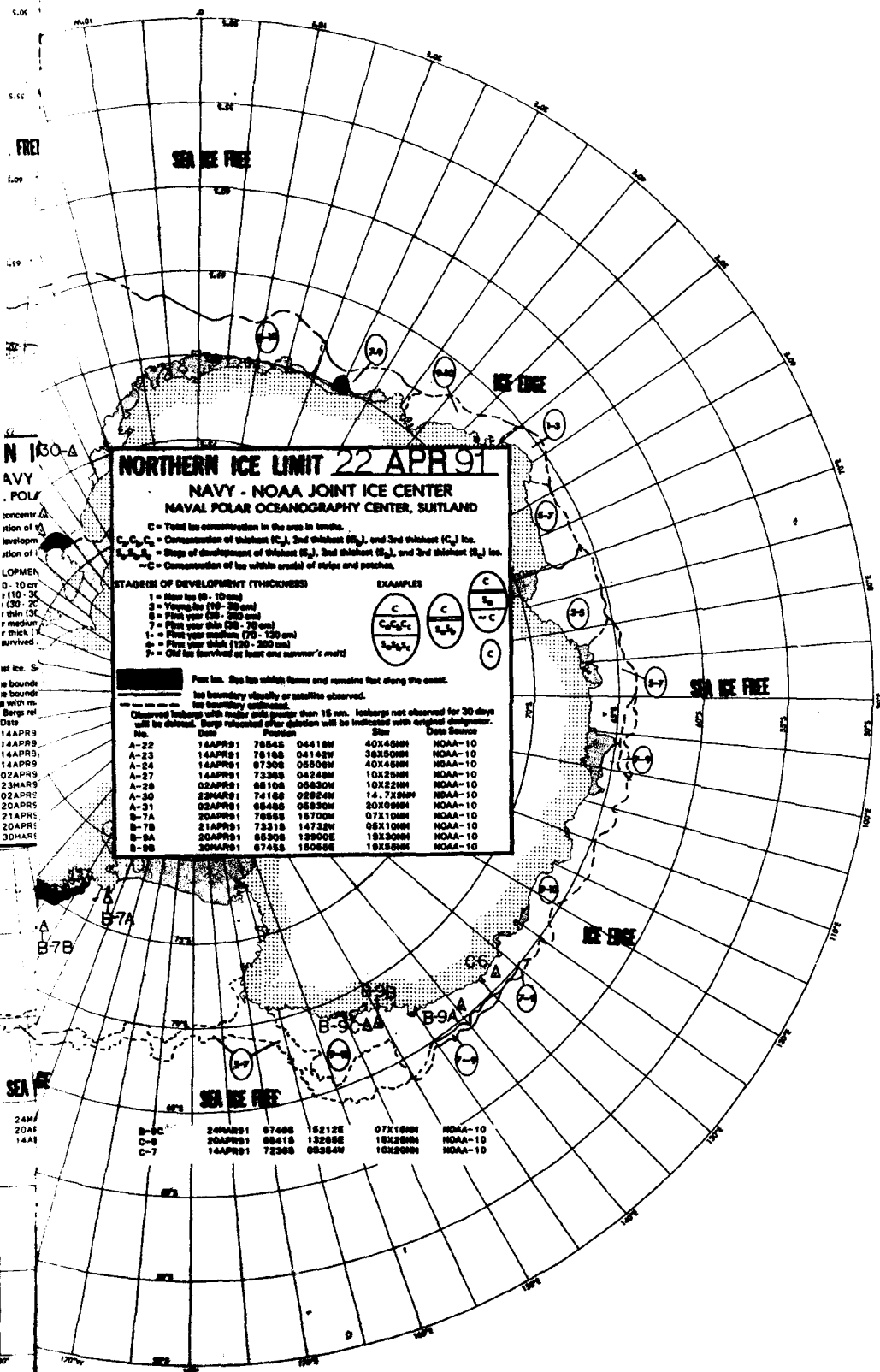


First ice. Sea ice which forms and remains fast along the coast.
Ice boundary visibility or satellite observed.
Ice boundary visibility.
Observed ice with smaller and greater than 10 cm. Iceberg not covered for 30 days will be deleted. Large icebergs after deletion will be indicated with original designation.

No.	Date	Position	Size	Days Remains
A-22	14APR91	7454S 04410W	40X45NM	NOAA-10
A-23	14APR91	7618S 04142W	10X50NM	NOAA-10
A-24	14APR91	7308S 05506W	40X45NM	NOAA-10
A-27	14APR91	7336S 04248W	10X25NM	NOAA-10
A-28	02APR91	6510S 05820W	10X22NM	NOAA-10
A-30	23MAR91	7418S 02824W	14.7X9NM	NOAA-10
A-31	02APR91	6546S 05930W	20X09NM	NOAA-10
B-7A	09APR91	7780S 15745W	07X10NM	NOAA-10
B-7B	30MAR91	7330S 14640W	05X10NM	NOAA-10
B-7C	30MAR91	6545S 14100E	19X30NM	NOAA-10
B-7D	30MAR91	6745S 15055E	19X55NM	NOAA-10

B-9C	24MAR91	6740S 15212E	07X15NM	NOAA-10
C-6	04APR91	6548S 13254E	15X25NM	NOAA-10
C-7	14APR91	7236S 05354W	10X20NM	NOAA-10





NORTHERN ICE LIMIT 22 APR 91

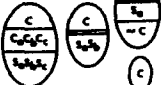
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

C = Total ice concentration in the area in tenths.
 C₁C₂C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
 S₁S₂S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
 W = Concentration of ice within areas of strips and patches.

STAGES OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 2 = Young ice (10 - 30 cm)
- 3 = First year (30 - 50 cm)
- 4 = First year (50 - 70 cm)
- 5 = First year (70 - 100 cm)
- 6 = First year (100 - 150 cm)
- 7 = First year (150 - 200 cm)
- 8 = Old ice (survived at least one summer's melt)

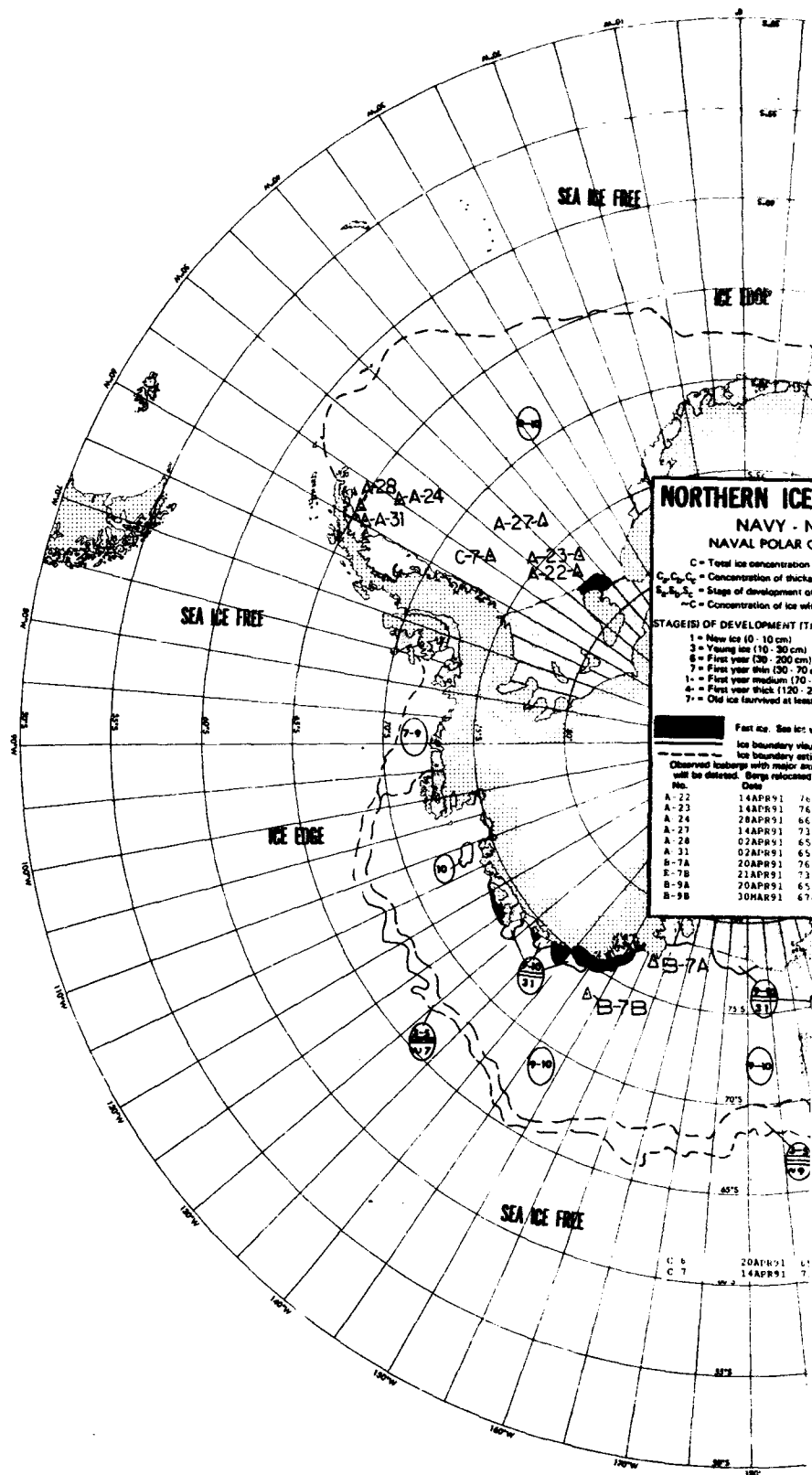
EXAMPLES



Ice boundary visually or satellite observed.
 Ice boundary visually or satellite observed.
 Observed icebergs with height greater than 15 m. Icebergs not observed for 30 days will be deleted. Berge reported after deletion will be indicated with original designator.

No.	Date	Position	Size	Date Source
A-22	14APR91	7654S 04410W	40X45NM	NOAA-10
A-23	14APR91	7618S 04142W	38X50NM	NOAA-10
A-24	14APR91	8730S 05008W	40X45NM	NOAA-10
A-27	14APR91	7336S 04248W	10X25NM	NOAA-10
A-28	02APR91	6610S 06630W	10X22NM	NOAA-10
A-30	23MAR91	7418S 02624W	14.7X9NM	NOAA-10
A-31	02APR91	6648S 06530W	20X09NM	NOAA-10
B-7A	20APR91	7658S 18700W	07X10NM	NOAA-10
B-7B	21APR91	7331S 14732W	08X10NM	NOAA-10
B-8A	20APR91	6530S 13900E	18X30NM	NOAA-10
B-9B	30MAR91	6745S 15065E	18X52NM	NOAA-10

B-9C	20APR91	6746S 15212E	07X10NM	NOAA-10
C-6	20APR91	6641S 13256E	18X20NM	NOAA-10
C-7	14APR91	7236S 05354W	10X20NM	NOAA-10

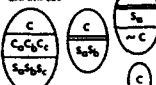


NORTHERN ICE LIMIT 29APR91

NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

- C = Total ice concentration in the area in tenths.
 C_1, C_2, C_3 = Concentration of thickest (C_1), 2nd thickest (C_2), and 3rd thickest (C_3) ice.
 S_1, S_2, S_3 = Stage of development of thickest (S_1), 2nd thickest (S_2), and 3rd thickest (S_3) ice.
 -C = Concentration of ice within areas of strips and patches.
- STAGE(S) OF DEVELOPMENT (THICKNESS)
- 1 = New ice (0 - 10 cm)
 - 2 = Young ice (10 - 30 cm)
 - 3 = First year (30 - 200 cm)
 - 4 = First year thin (30 - 70 cm)
 - 5 = First year medium (70 - 120 cm)
 - 6 = First year thick (120 - 200 cm)
 - 7 = Old ice (survived at least one summer's melt)

EXAMPLES



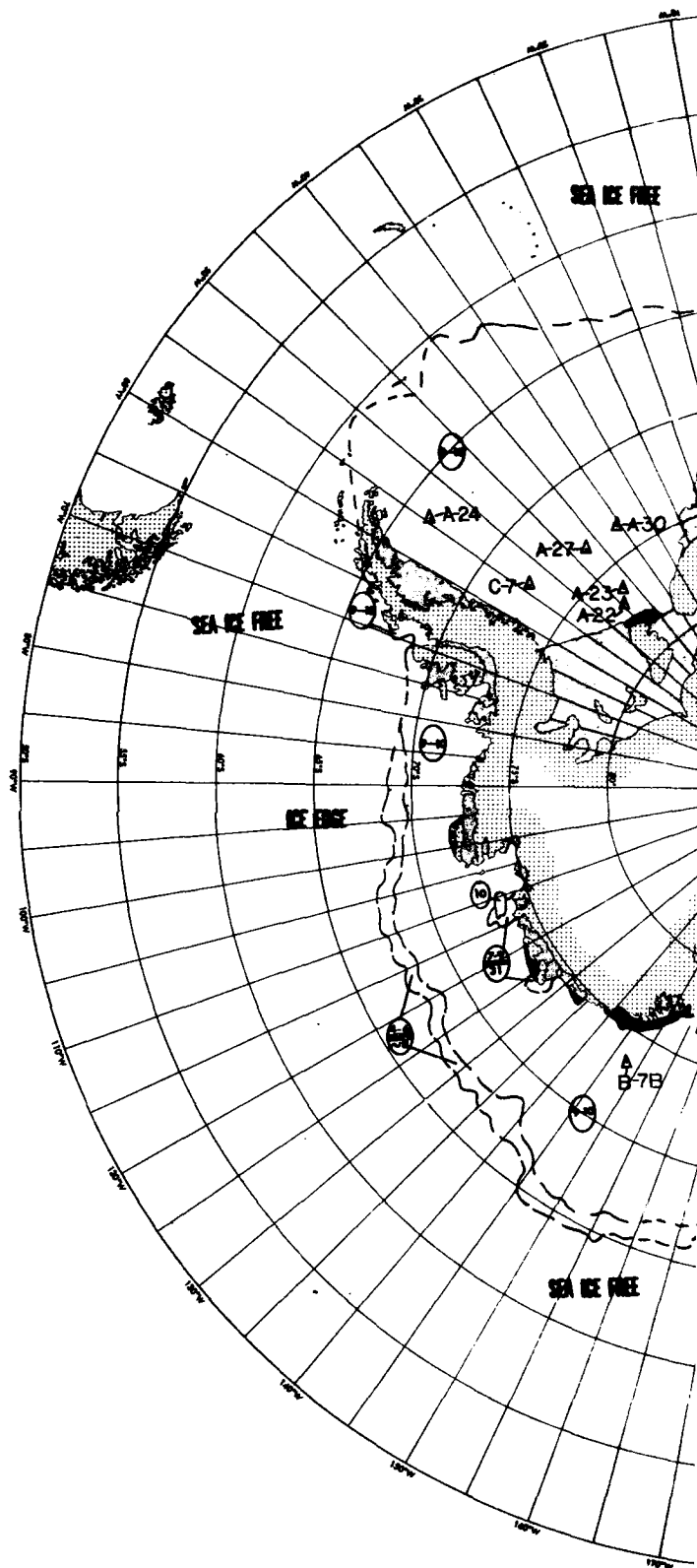
Fast ice. Sea ice which forms and remains fast along the coast.

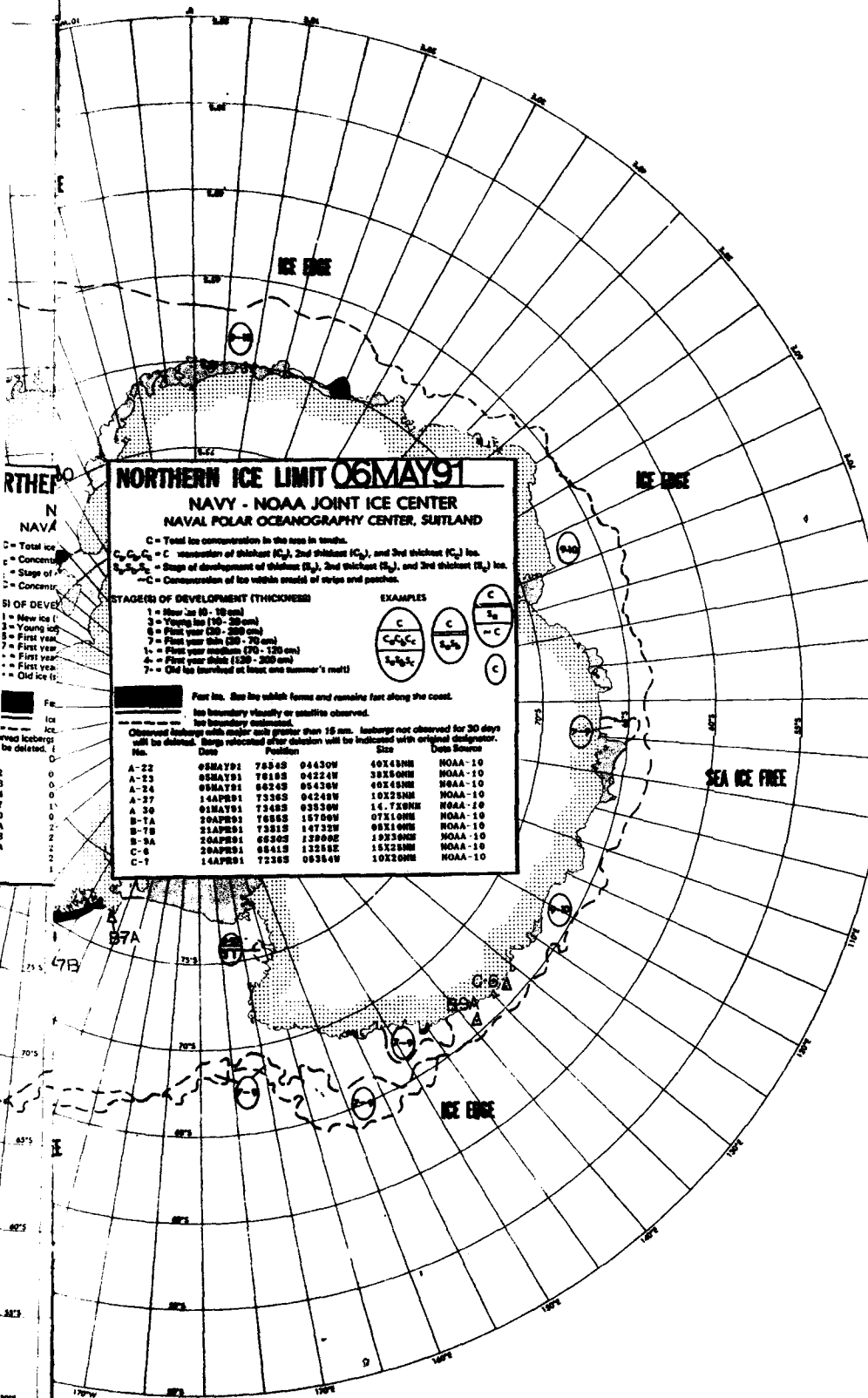
Ice boundary visually or satellite observed.

Observed icebergs with major axis greater than 15 nm. Icebergs not observed for 30 days will be deleted. Berge relocated after deletion will be indicated with original designator.

No.	Date	Position	Size	Data Source
A-22	14APR91	7654S 04418W	40X45NM	NOAA-10
A-23	14APR91	7618S 04142W	38X50NM	NOAA-10
A-24	29APR91	6648S 05454W	40X45NM	NOAA-10
A-27	14APR91	7336S 04248W	10X25NM	NOAA-10
A-28	02APR91	6510S 05830W	10X22NM	NOAA-10
A-31	02APR91	6548S 05930W	20X09NM	NOAA-10
B-7A	20APR91	7655S 15700W	07X10NM	NOAA-10
B-7B	21APR91	7311S 14732W	05X10NM	NOAA-10
B-9A	20APR91	6530S 13900E	19X30NM	NOAA-10
B-9B	30APR91	6745S 15055E	19X55NM	NOAA-10

BB-7A	20APR91	6541S	13255E	15X25NM	NOAA-10
7B	14APR91	7236S	05354W	10X20NM	NOAA-10

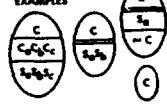




NORTHERN ICE LIMIT 06MAY91 **NAVY - NOAA JOINT ICE CENTER** **NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND**

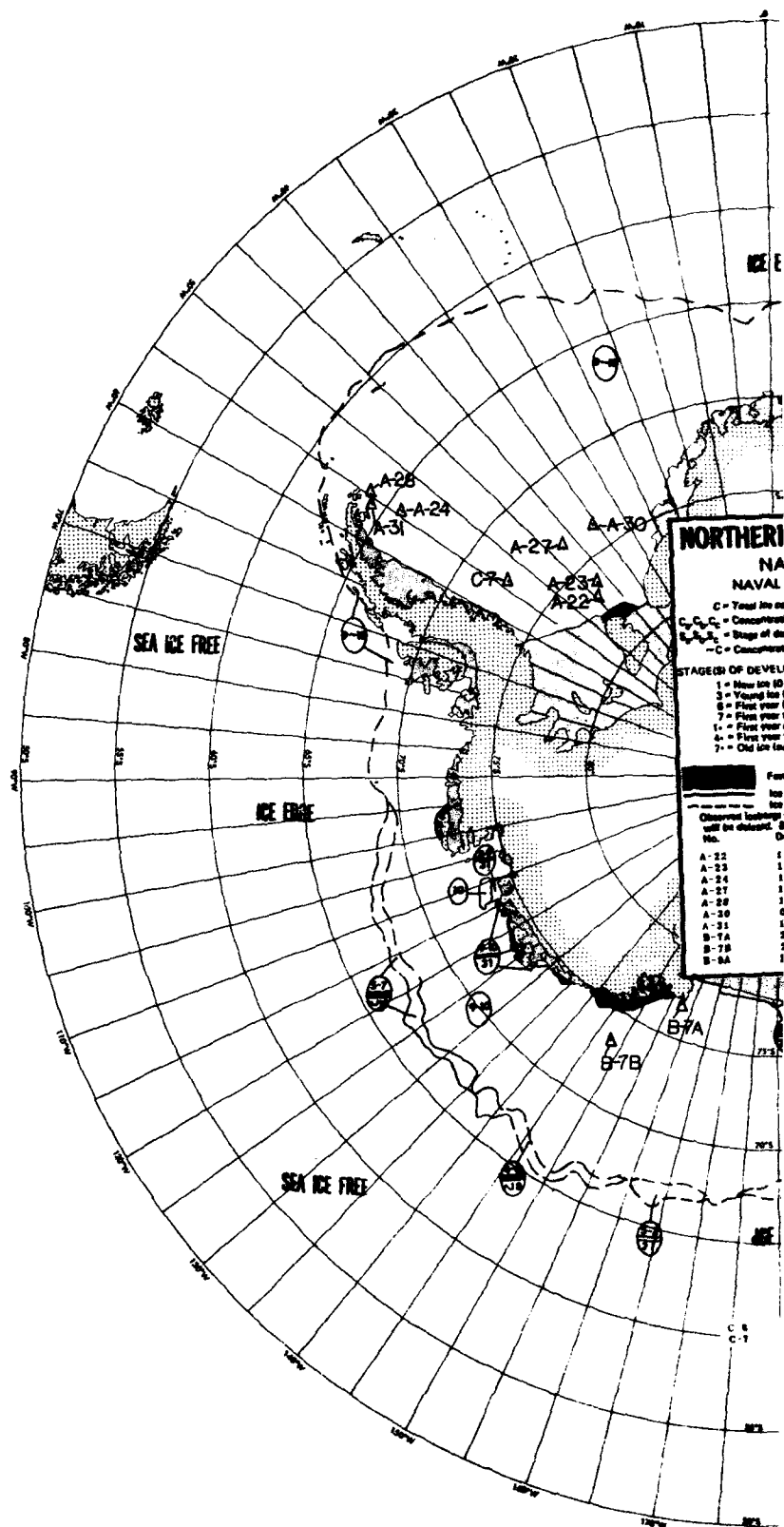
C = Total ice concentration in the sea in tenths.
 C_1, C_2, C_3 = C - concentration of thickest (C_1), 2nd thickest (C_2), and 3rd thickest (C_3) ice.
 S_1, S_2, S_3 = Stage of development of thickest (S_1), 2nd thickest (S_2), and 3rd thickest (S_3) ice.
 -C = Concentration of ice visible around or within patches.

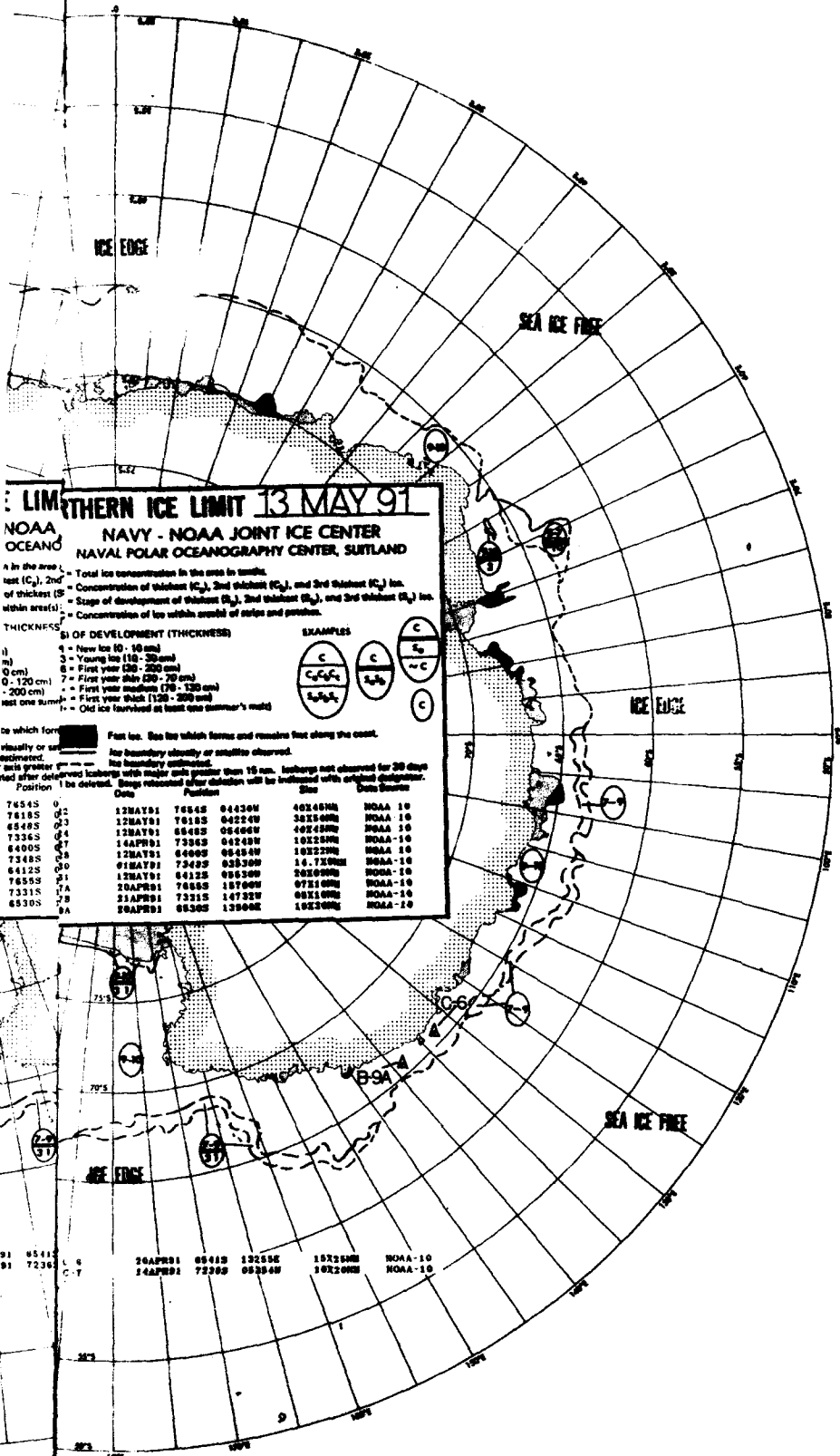
STAGES OF DEVELOPMENT (THICKNESS)
 1 = New ice (0 - 10 cm)
 2 = Young ice (10 - 20 cm)
 3 = First year (20 - 30 cm)
 4 = First year (30 - 50 cm)
 5 = First year (50 - 70 cm)
 6 = First year (70 - 100 cm)
 7 = First year (100 - 120 cm)
 8 = First year (120 - 200 cm)
 9 = Old ice (survived at least one summer's melt)

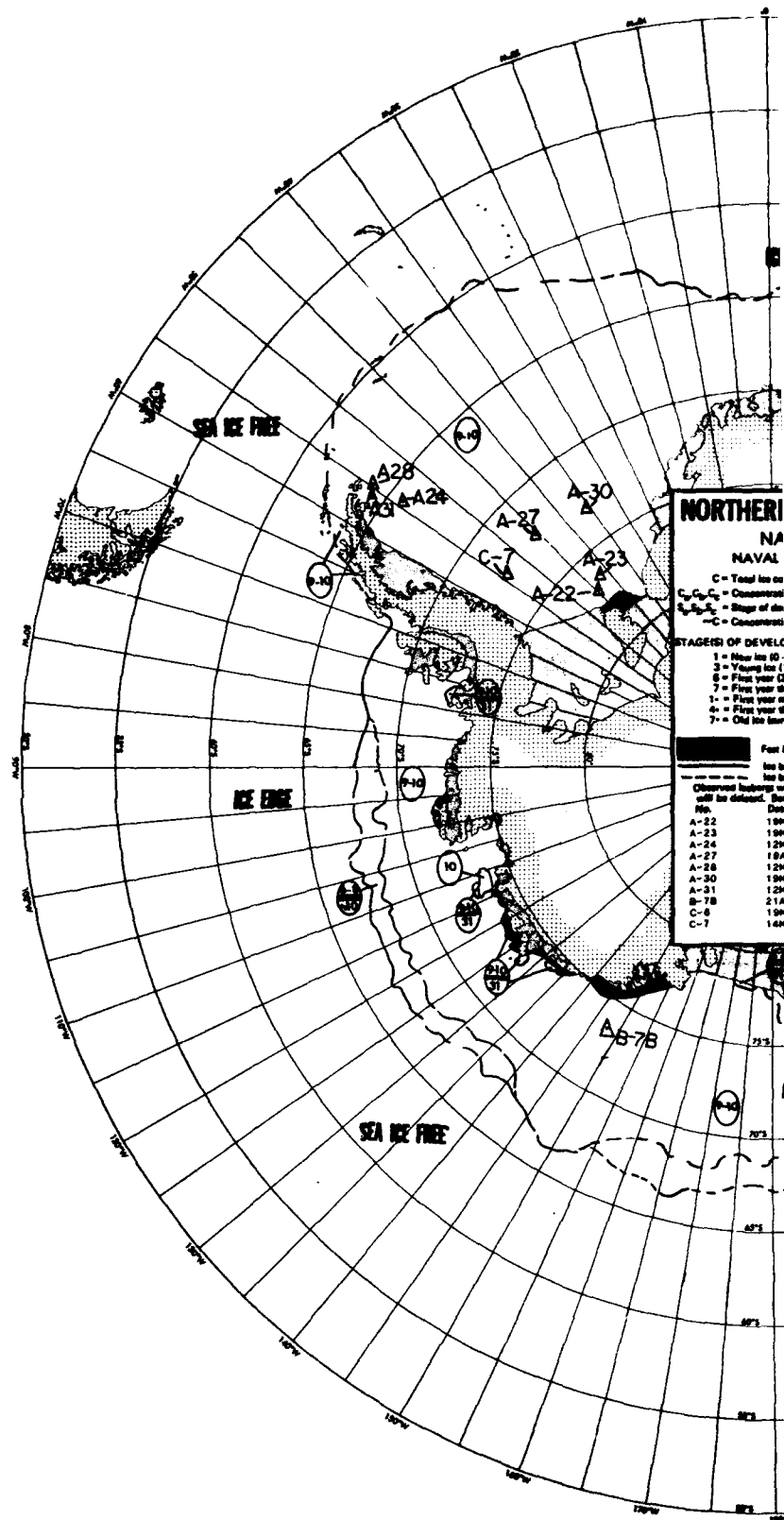


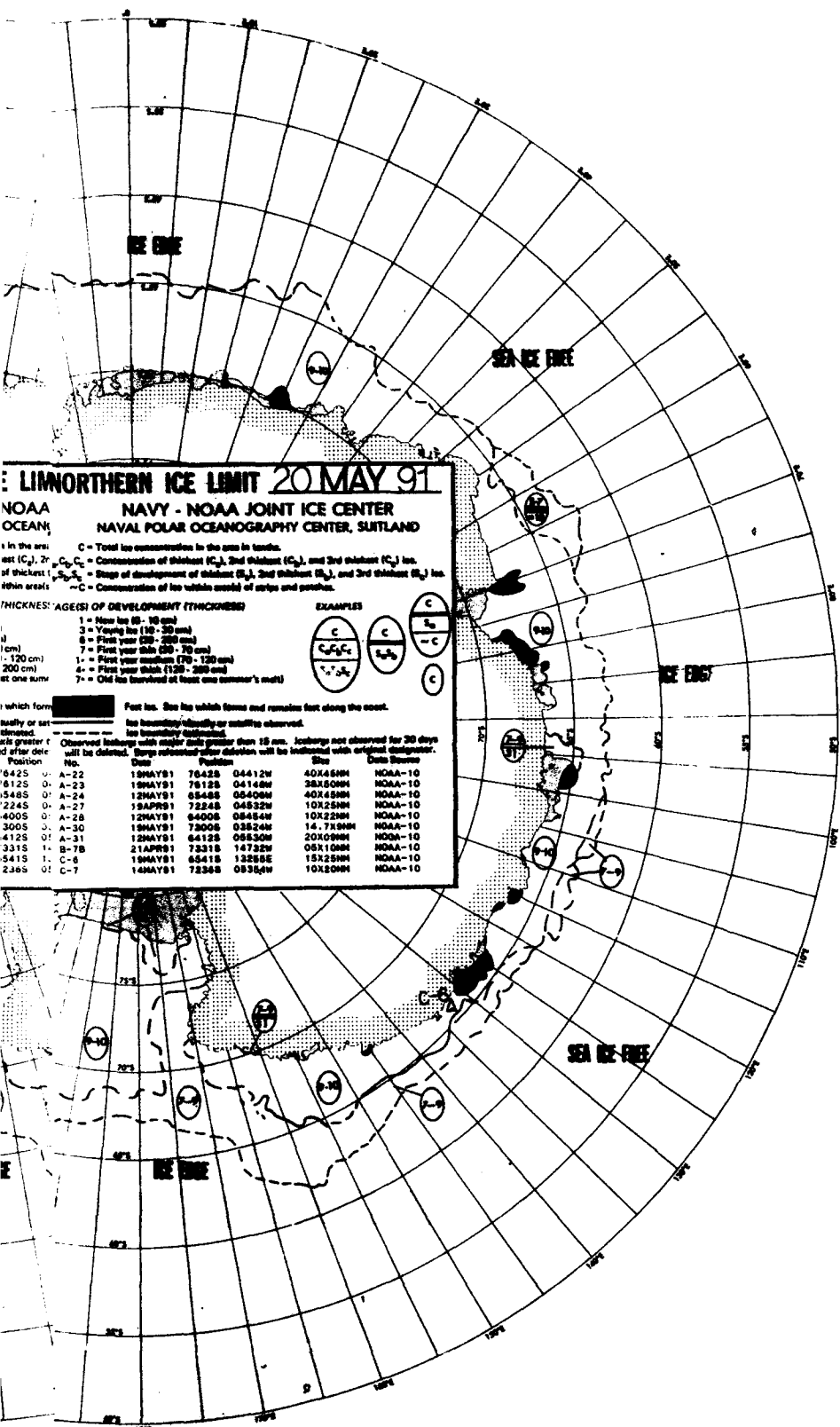
Part 1a. See the white forms and remaining part along the coast.
 Ice boundary visually or satellite observed.
 Ice boundary estimated.
 Observed icebergs with number and greater than 16 mm. Icebergs not observed for 30 days will be deleted. Bergs relocated after deletion will be indicated with original designator.

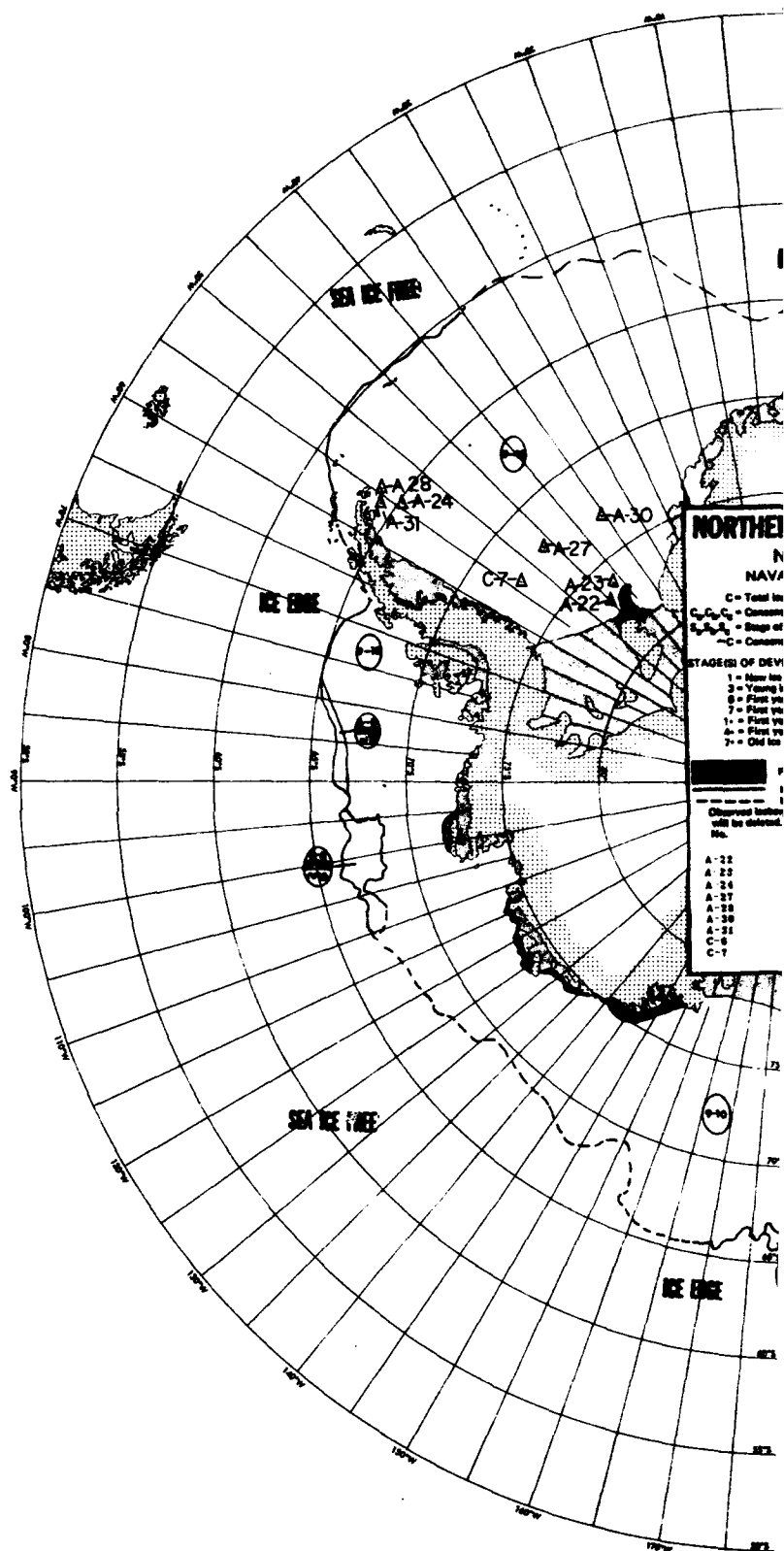
No.	Date	Position	Size	Date Source
A-22	05MAY91	7534S 04430W	46X43NM	NOAA-10
A-23	05MAY91	7518S 04224W	38X50NM	NOAA-10
A-24	05MAY91	0424S 04430W	40X45NM	NOAA-10
A-37	14APR91	7336S 04248W	10X25NM	NOAA-10
A-30	01MAY91	7348S 03330W	14.7X8NM	NOAA-10
B-7A	20APR91	7555S 15750W	07X10NM	NOAA-10
B-7B	21APR91	7331S 14733W	09X10NM	NOAA-10
B-9A	20APR91	6630S 13900E	10X30NM	NOAA-10
C-6	20APR91	6841S 13258E	15X23NM	NOAA-10
C-7	14APR91	7238S 09354W	10X20NM	NOAA-10

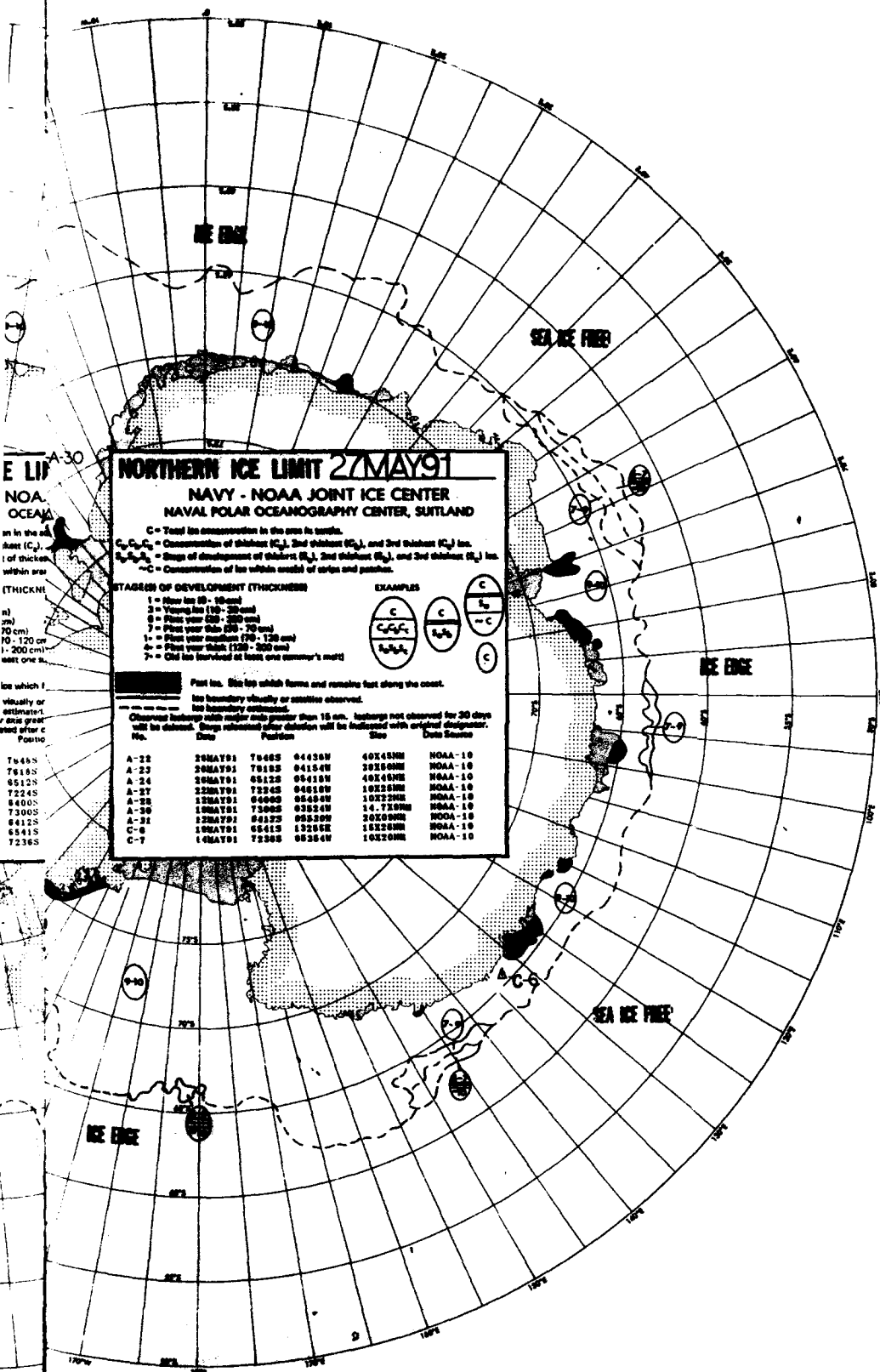


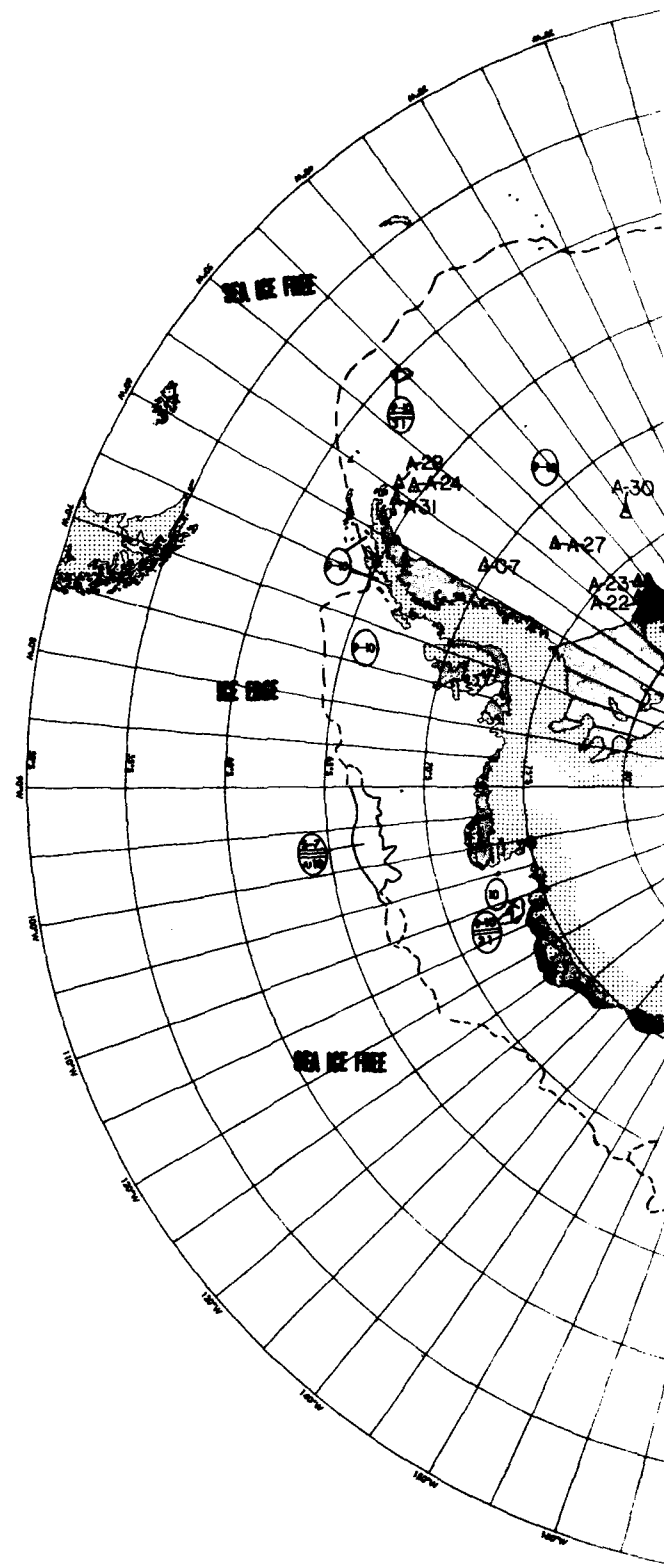


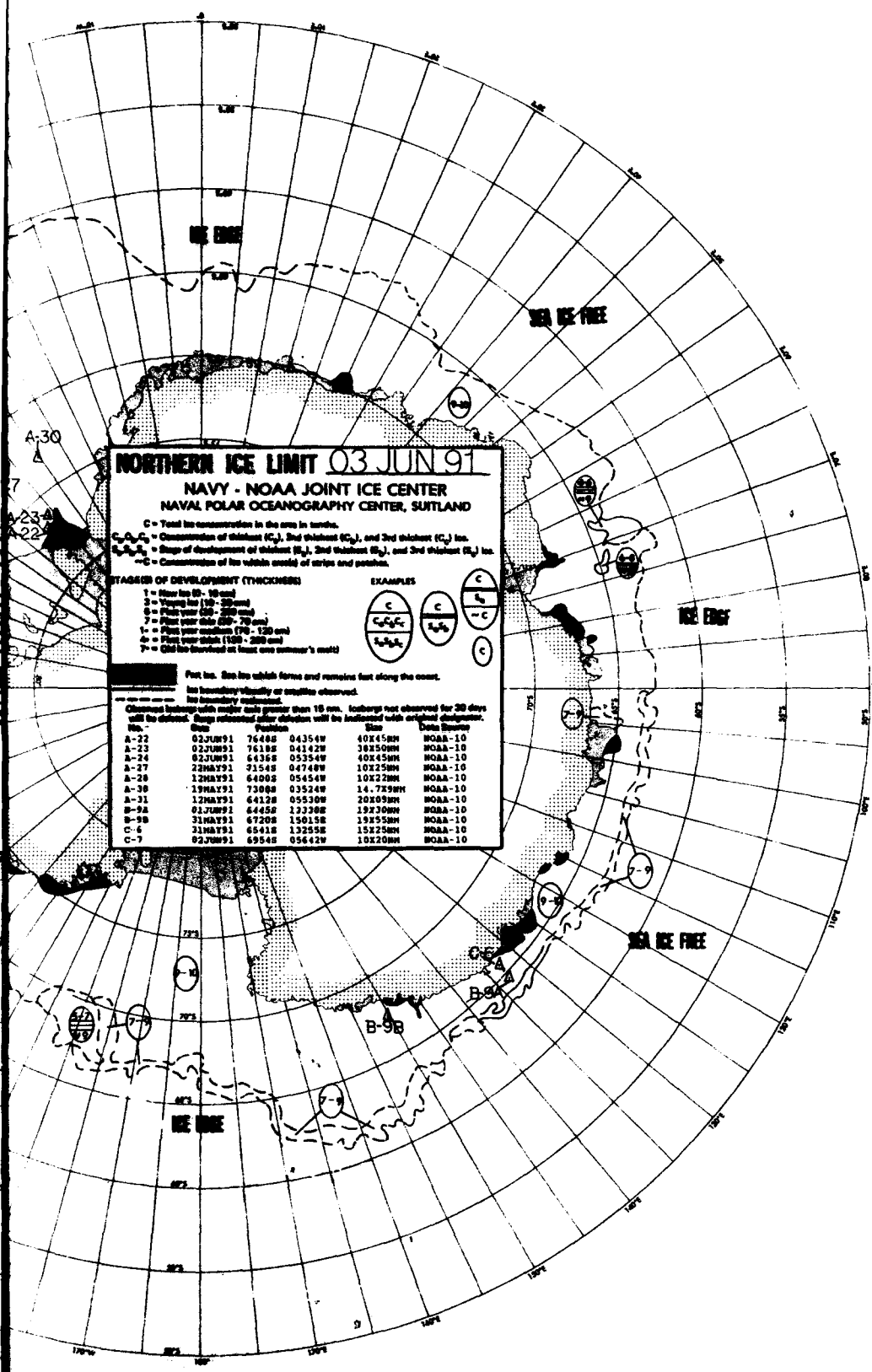












NORTHERN ICE LIMIT 03 JUN 91

NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
S₁, S₂, S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
-C = Concentration of ice within circle of stripe and position.

STAGES OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 2 = Young ice (10 - 25 cm)
- 3 = First year (25 - 50 cm)
- 4 = First year (50 - 75 cm)
- 5 = First year (75 - 120 cm)
- 6 = First year (120 - 200 cm)
- 7 = Old ice (over 200 cm)
- 8 = Old ice (over 200 cm)

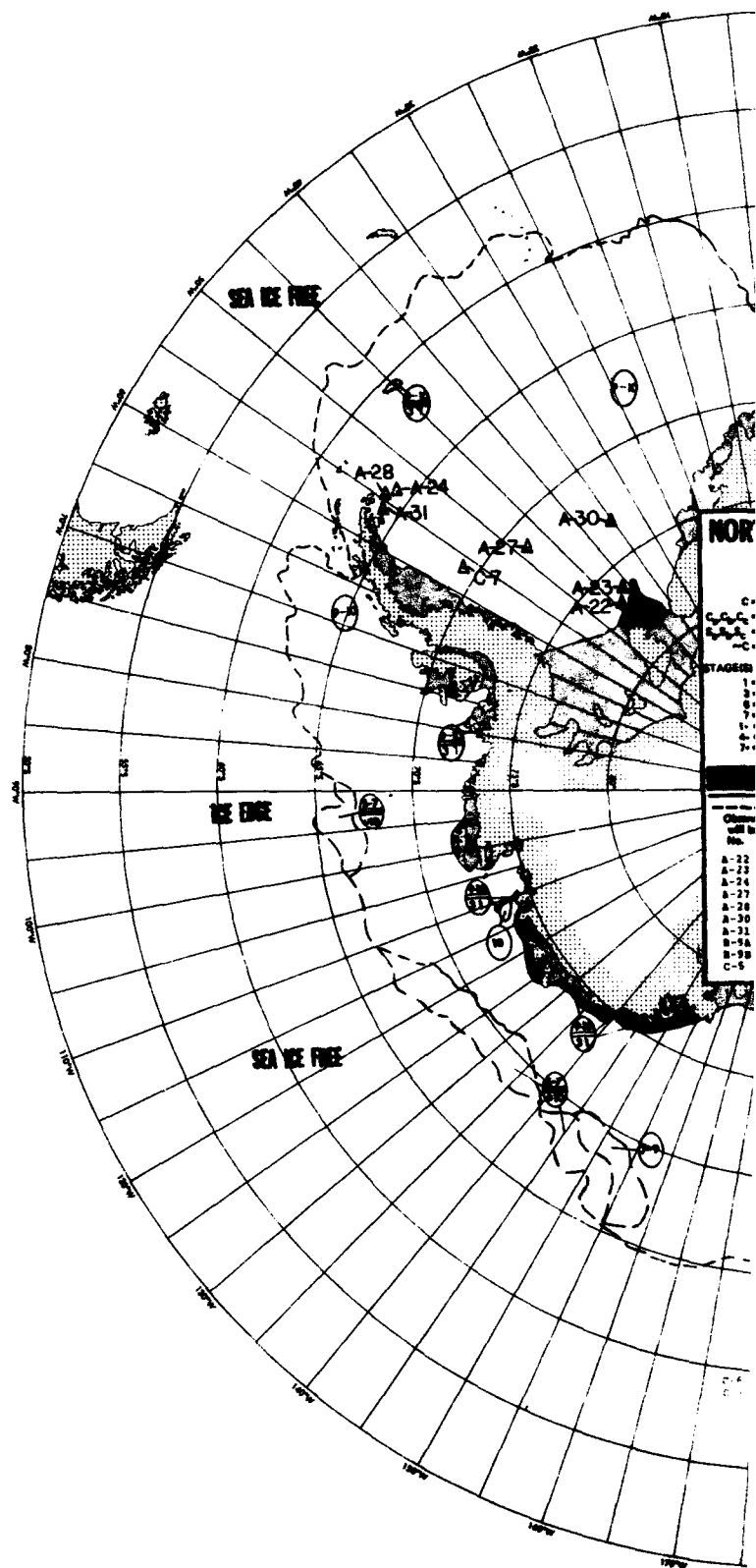
EXAMPLES

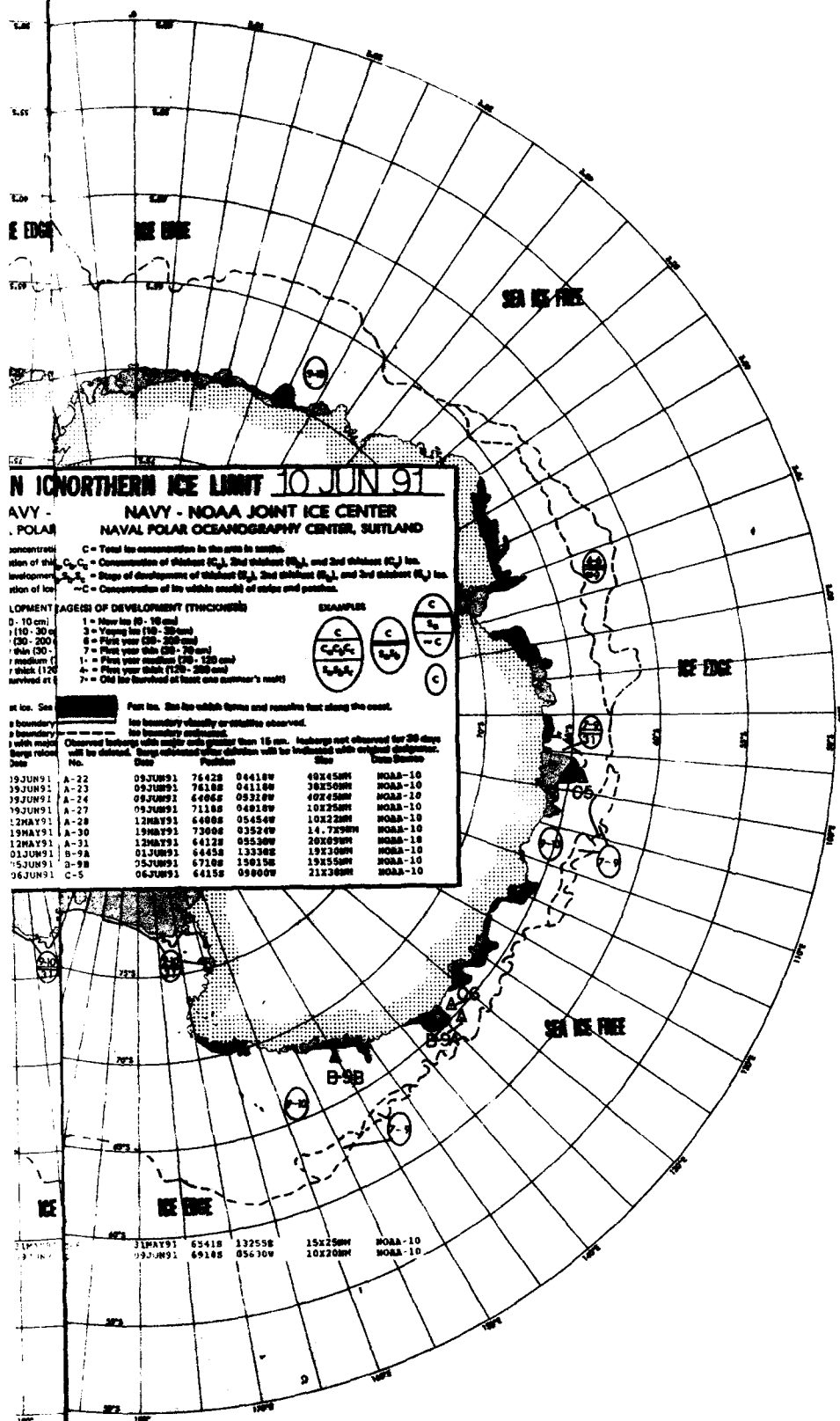


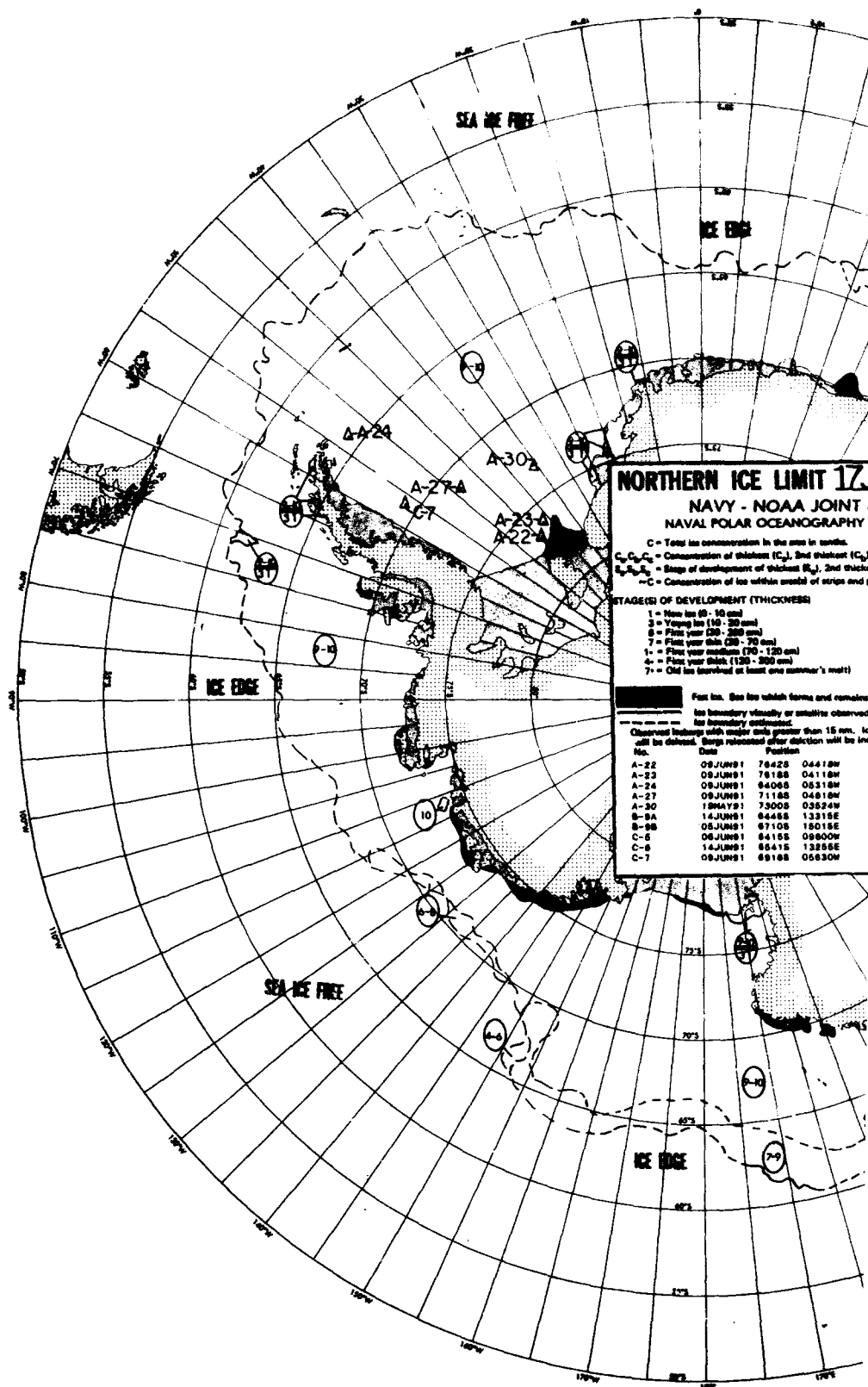
For ice. See ice within forms and remains fast along the coast.
No boundary visibility or satellite observed.

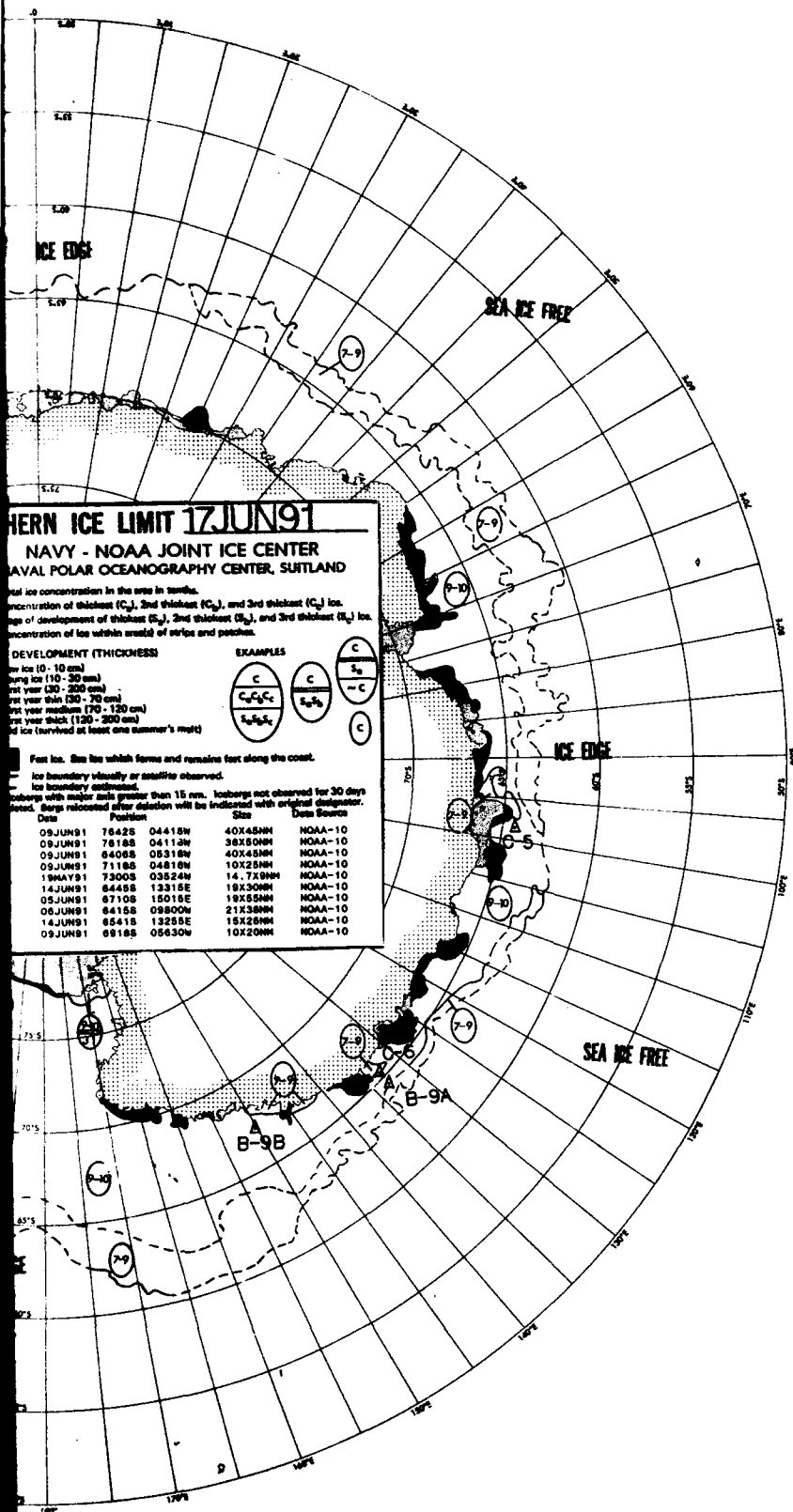
Observations with major axis greater than 15 cm. Iceberg not observed for 30 days.
will be shown. Some additional data shown will be indicated with original designation.

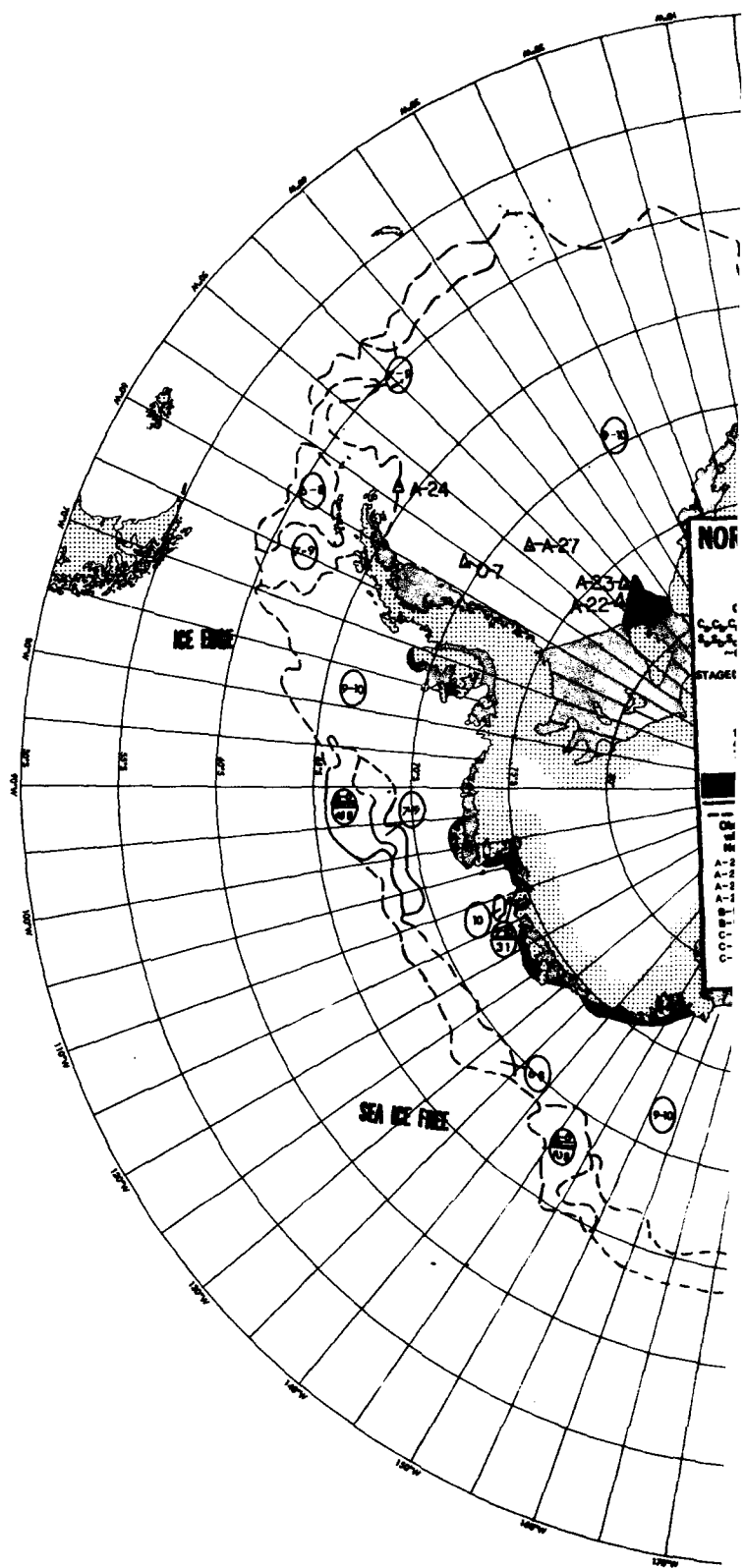
No.	Date	Position	Size	Notes
A-22	02JUN91	76488 04354W	40X45NM	NOAA-10
A-23	02JUN91	76188 04142W	30X50NM	NOAA-10
A-24	02JUN91	64368 05354W	40X45NM	NOAA-10
A-27	22MAY91	71548 04748W	10X25NM	NOAA-10
A-28	12MAY91	64008 05454W	10X22NM	NOAA-10
A-30	19MAY91	73008 03524W	14.7X9NM	NOAA-10
A-31	12MAY91	64128 05510W	20X30NM	NOAA-10
B-9A	02JUN91	64450 12330E	19X30NM	NOAA-10
B-9B	31MAY91	67208 15015E	19X55NM	NOAA-10
C-6	31MAY91	65418 13255E	15X25NM	NOAA-10
C-7	02JUN91	69548 05642W	10X20NM	NOAA-10

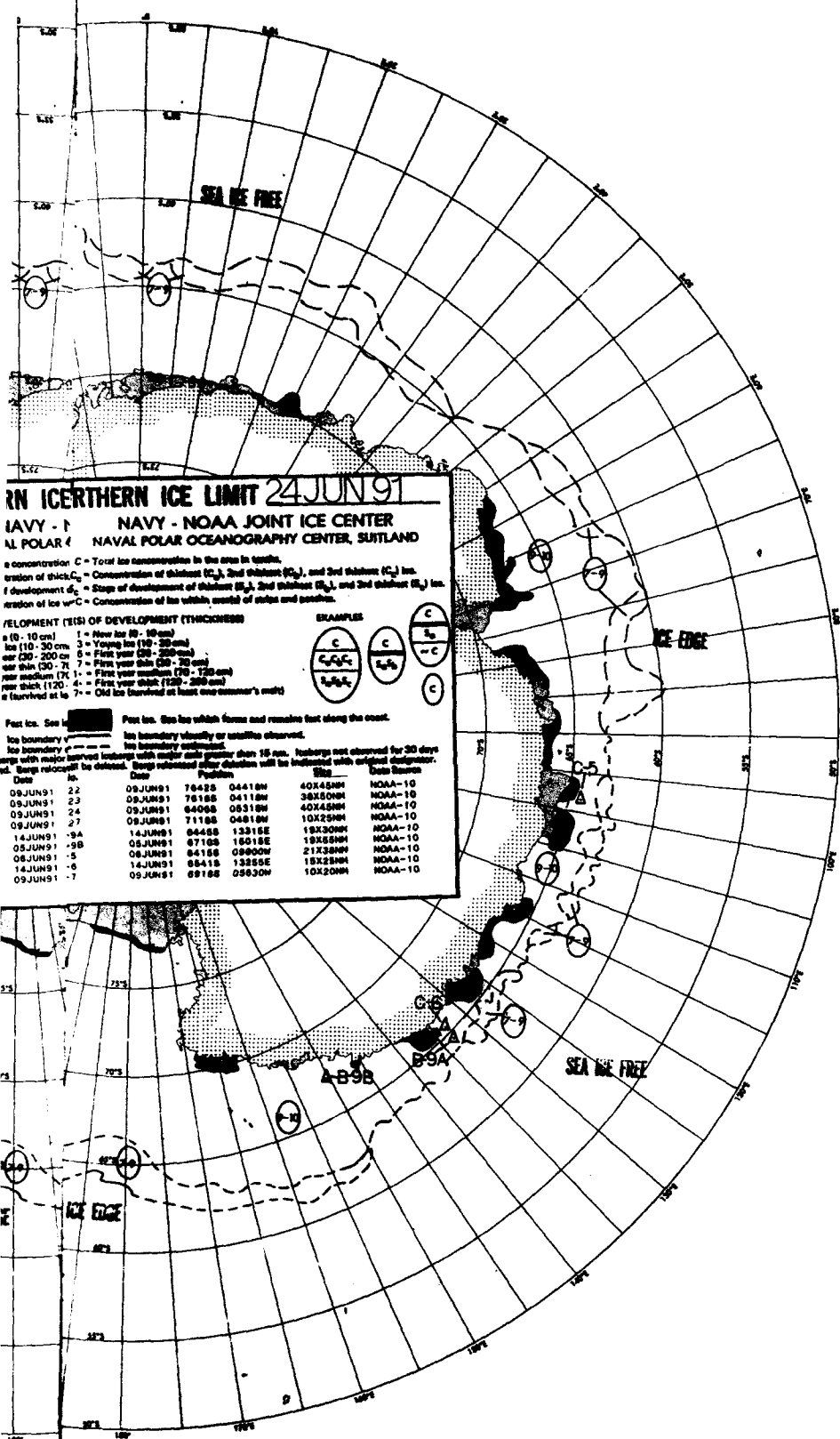


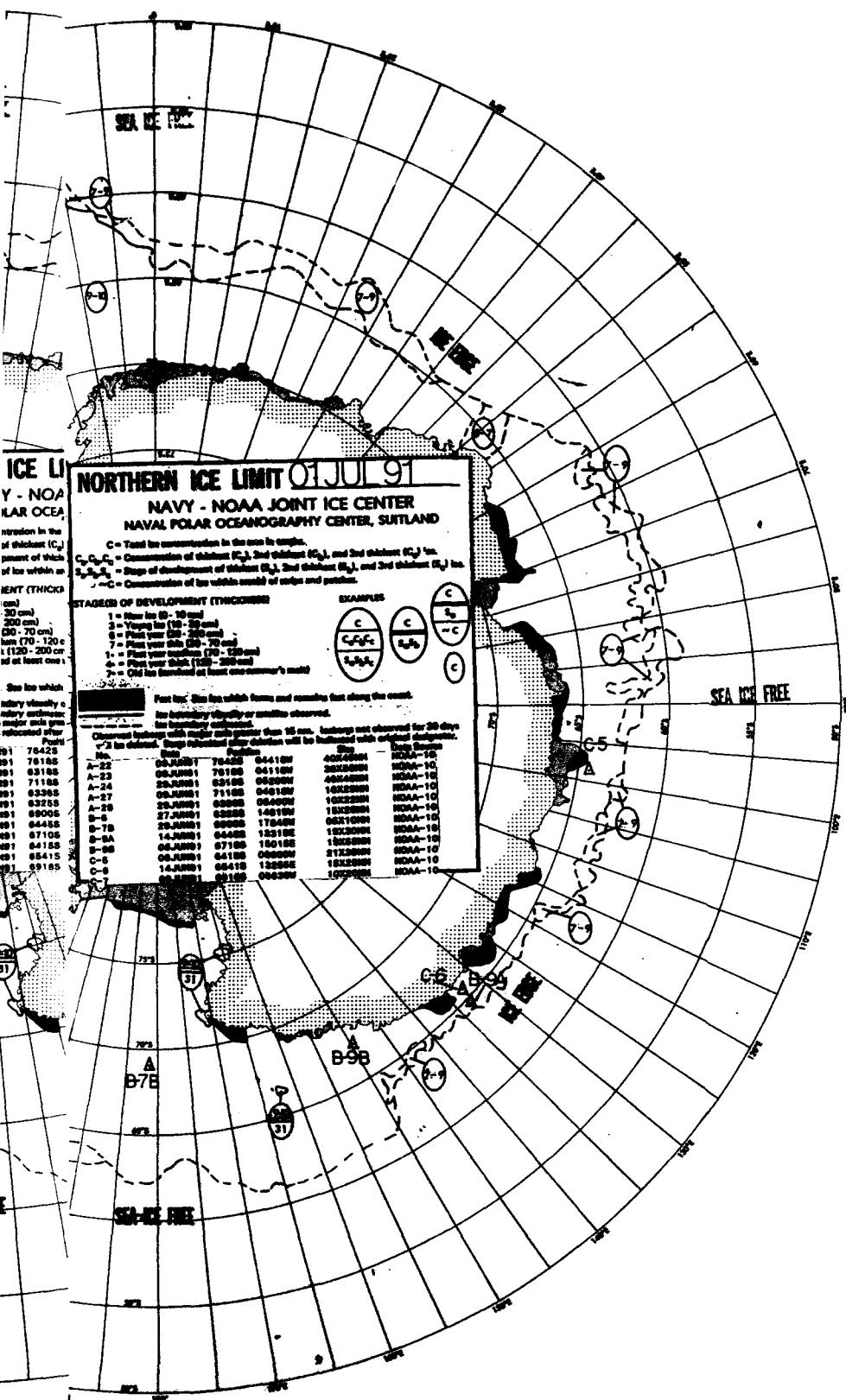


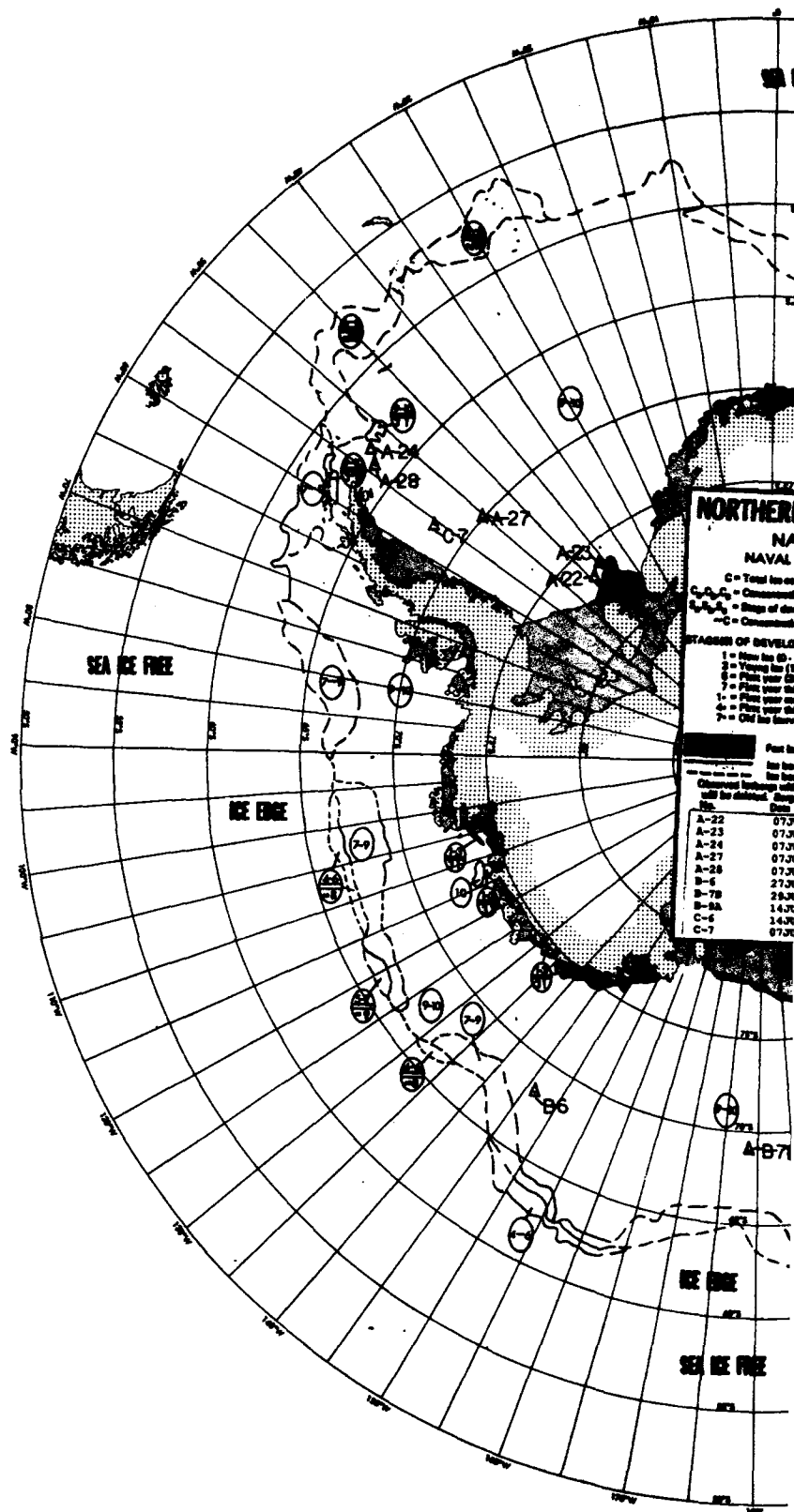


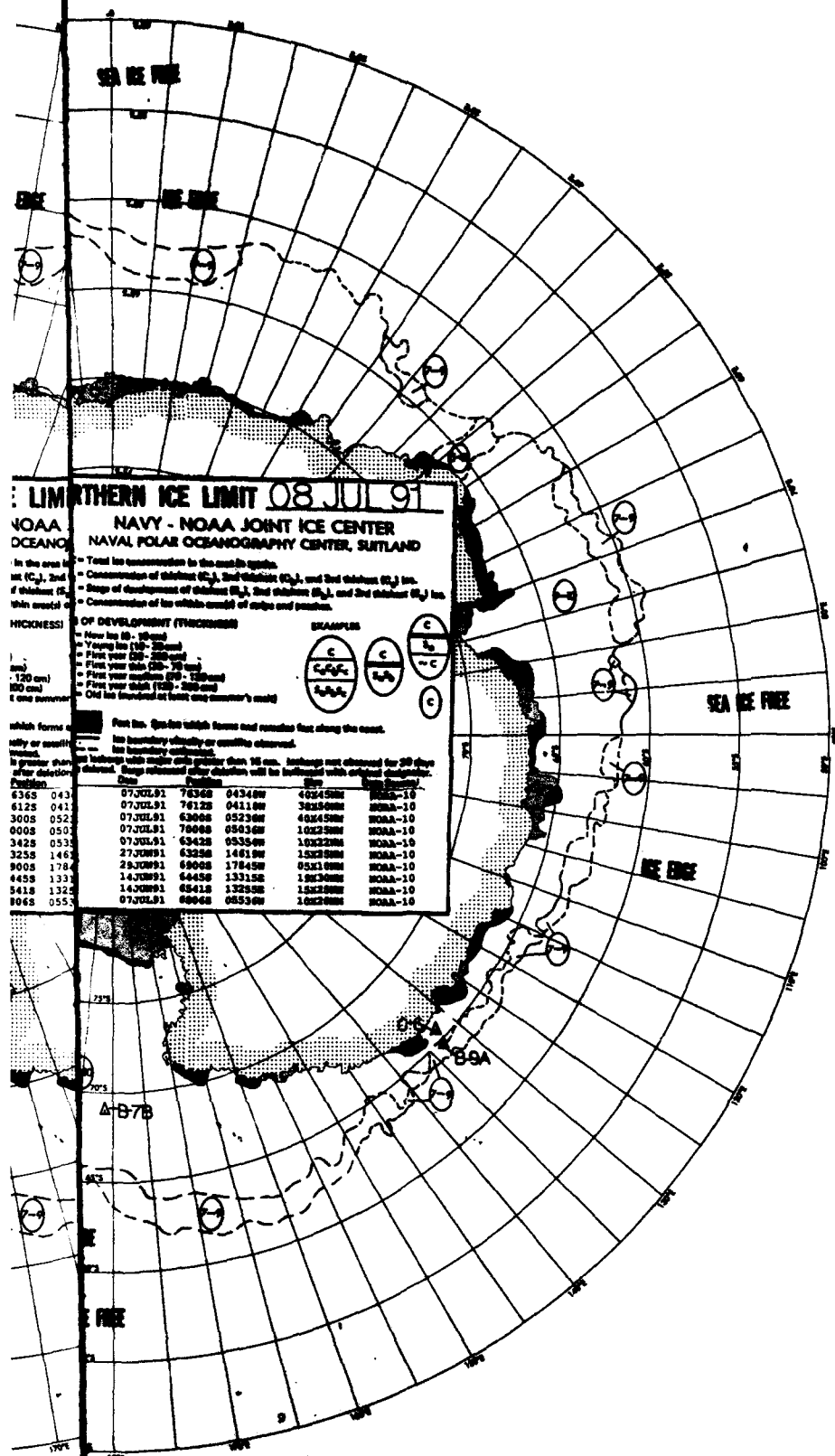


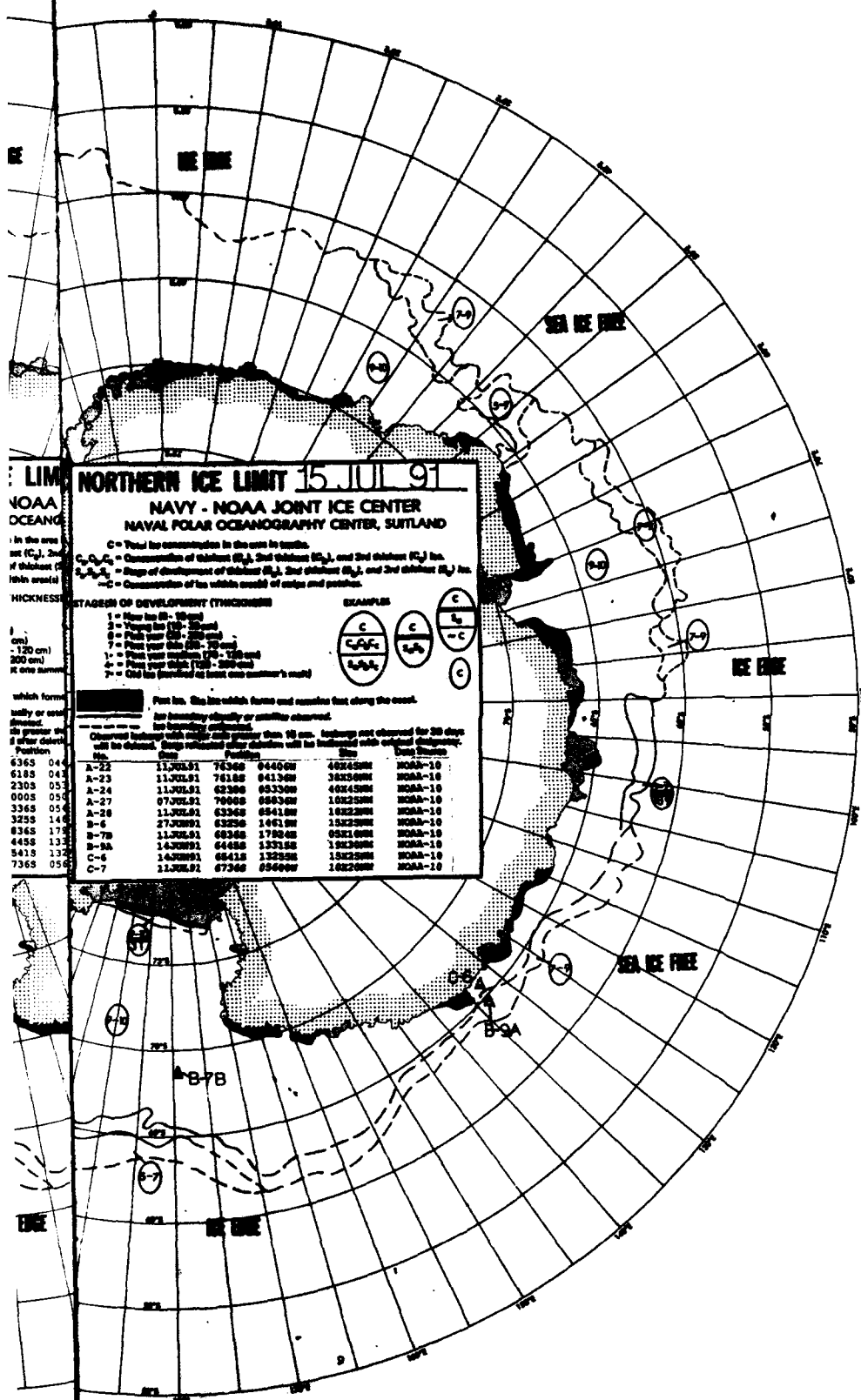


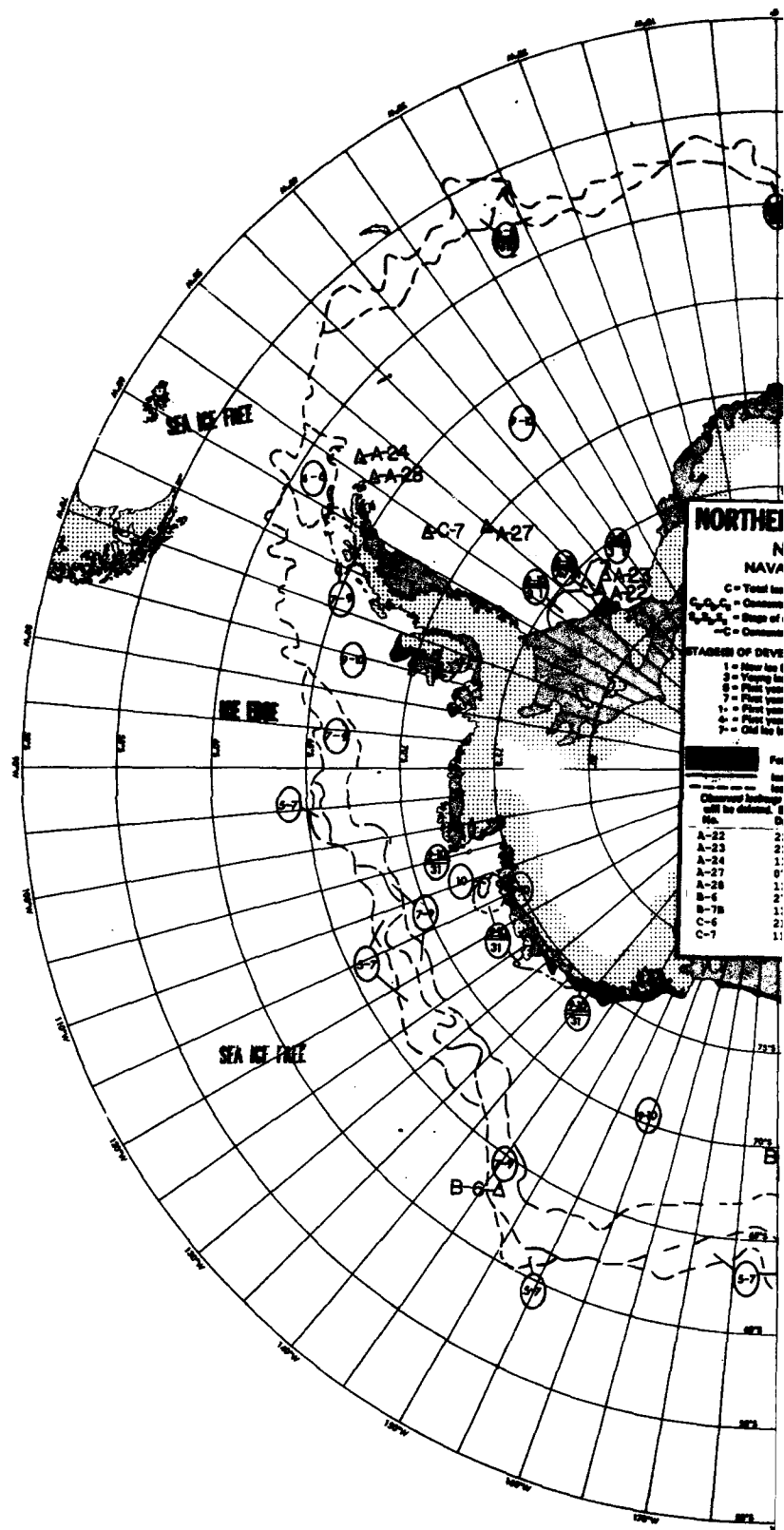


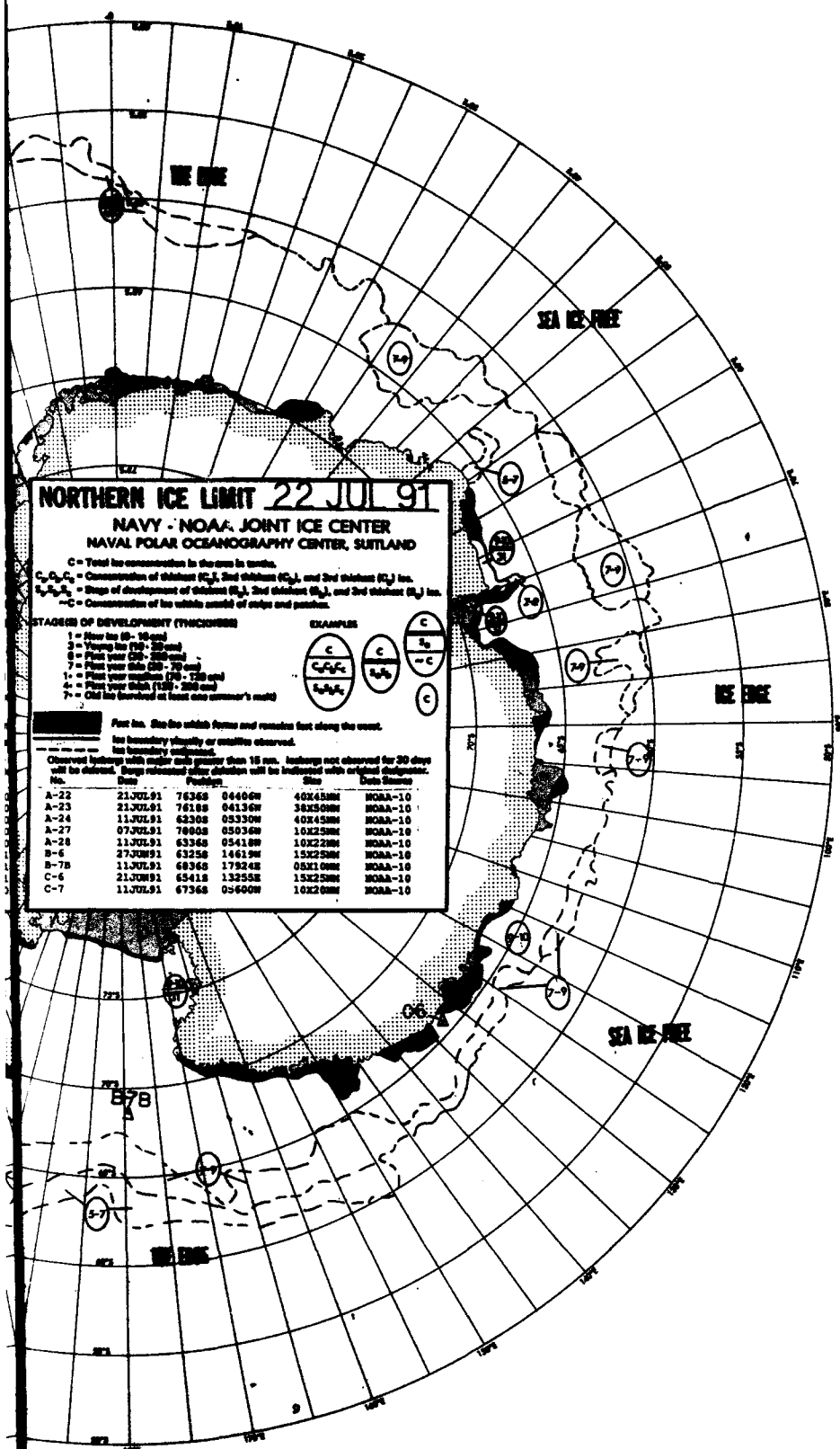


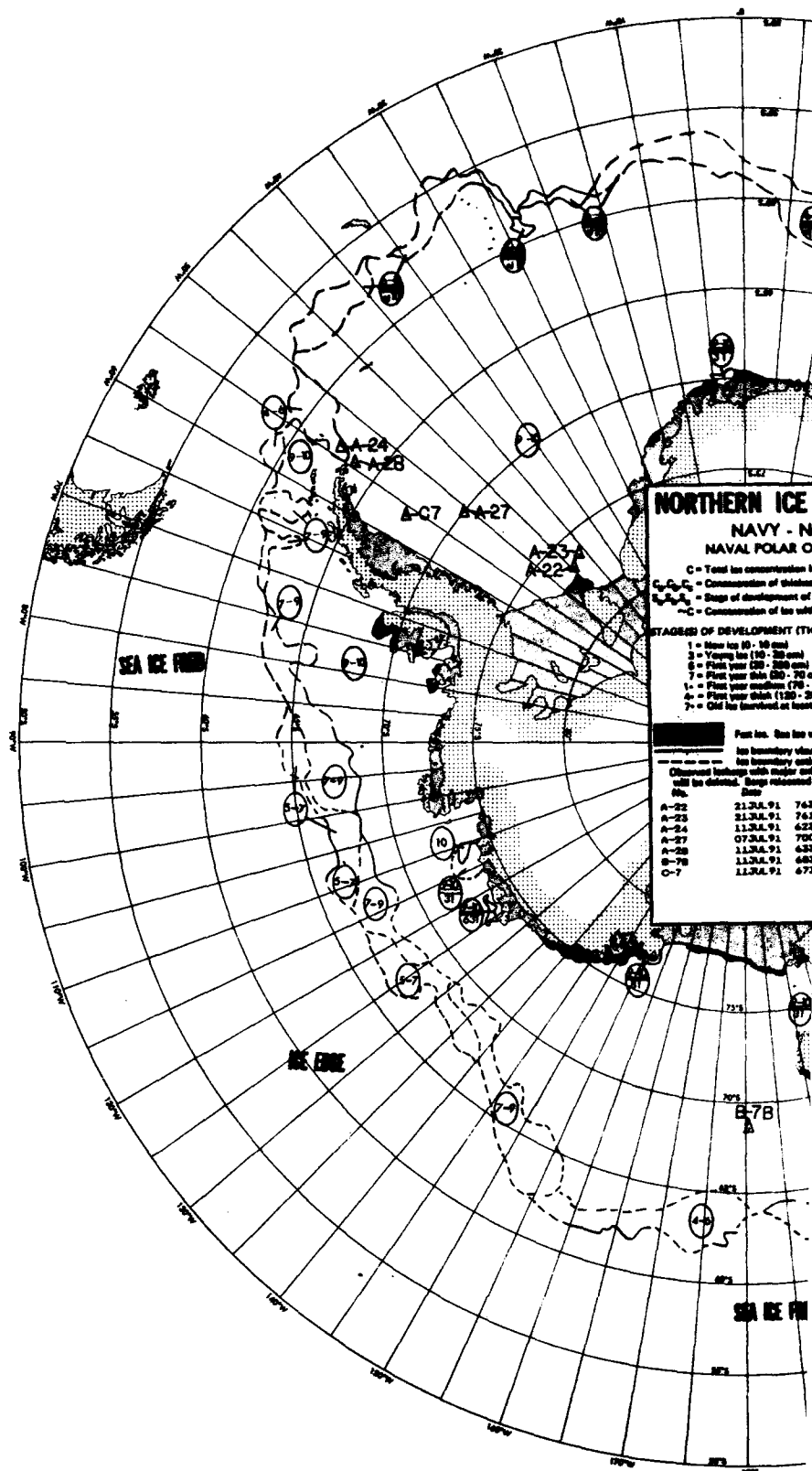


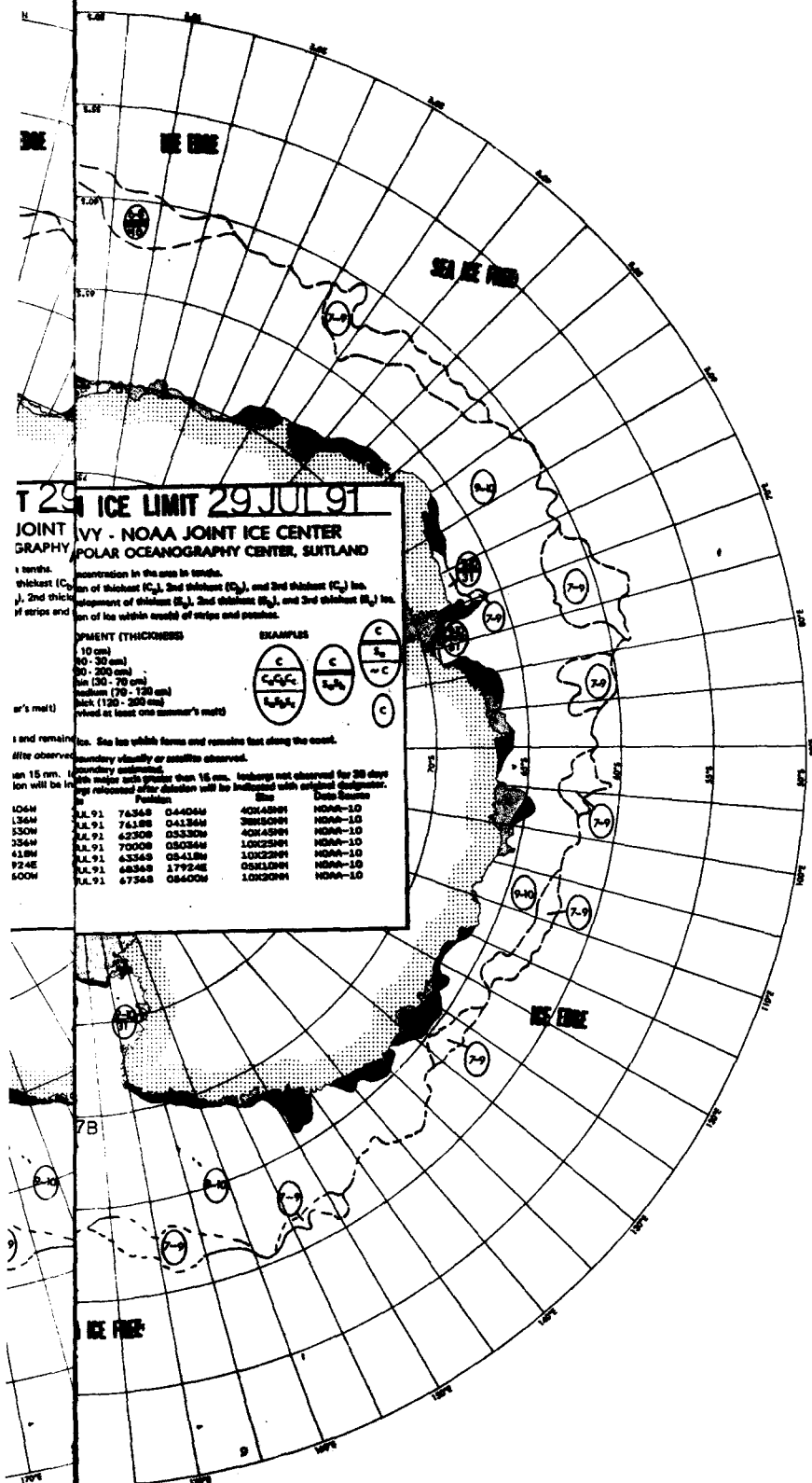


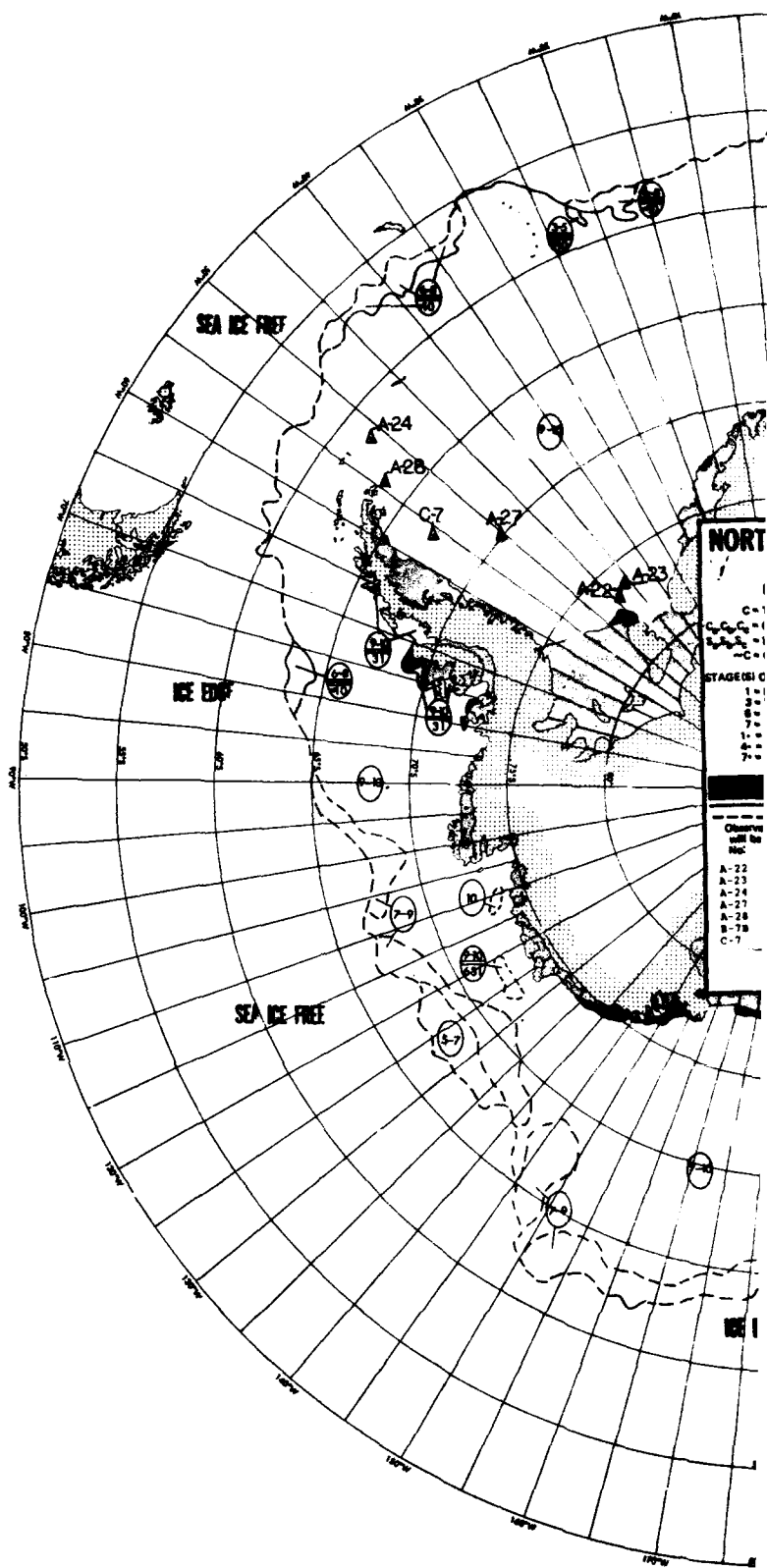


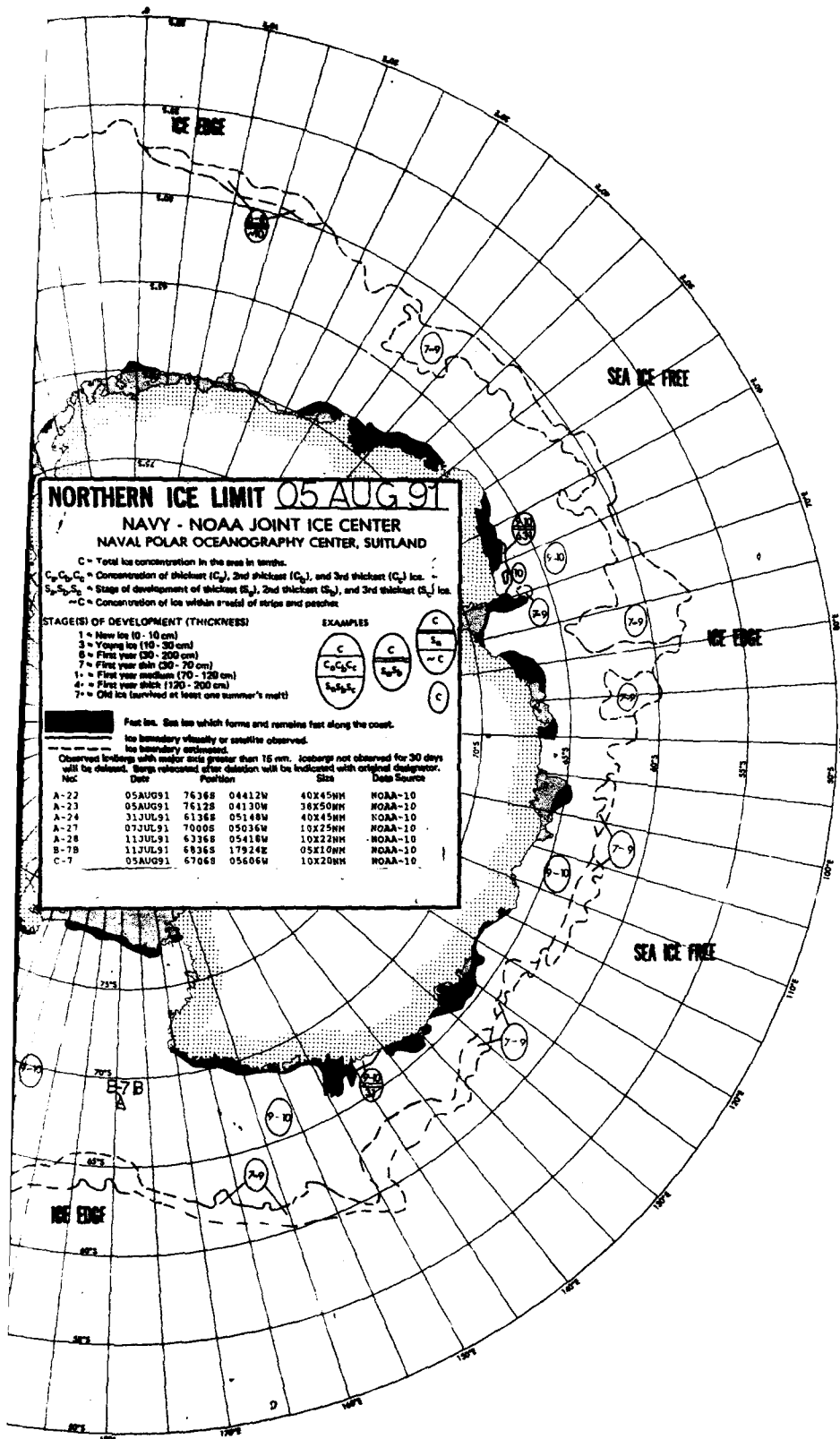


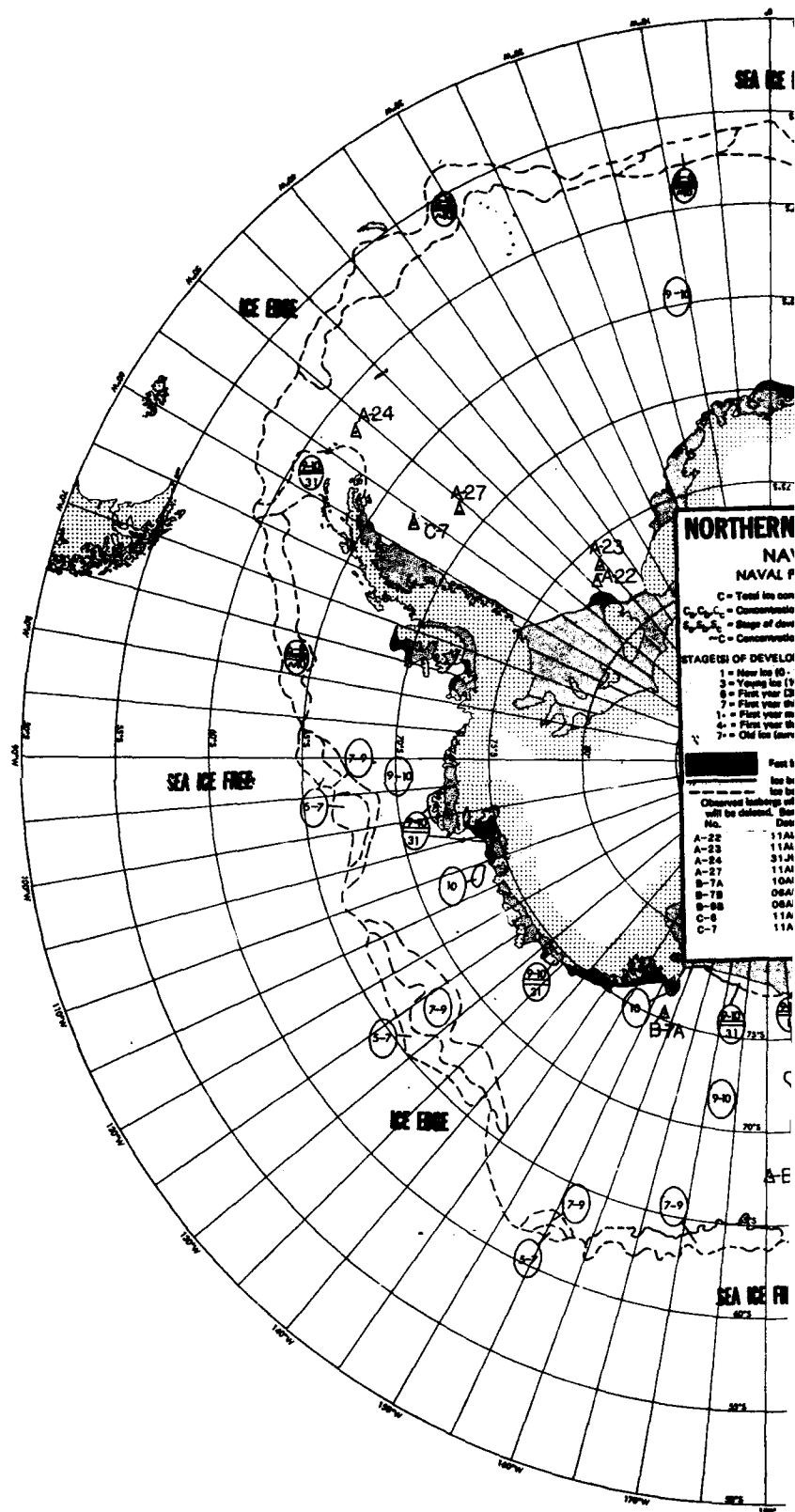


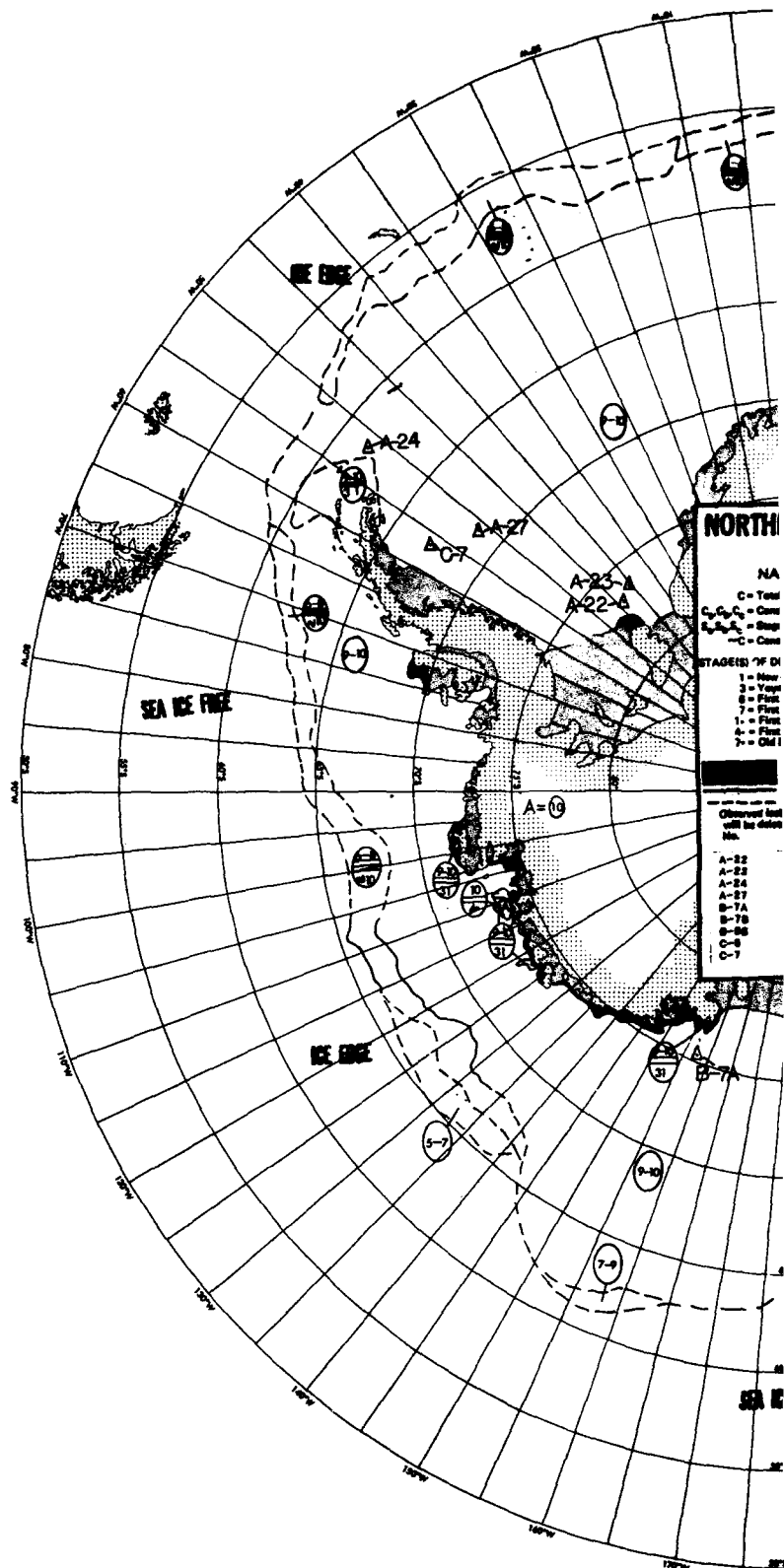


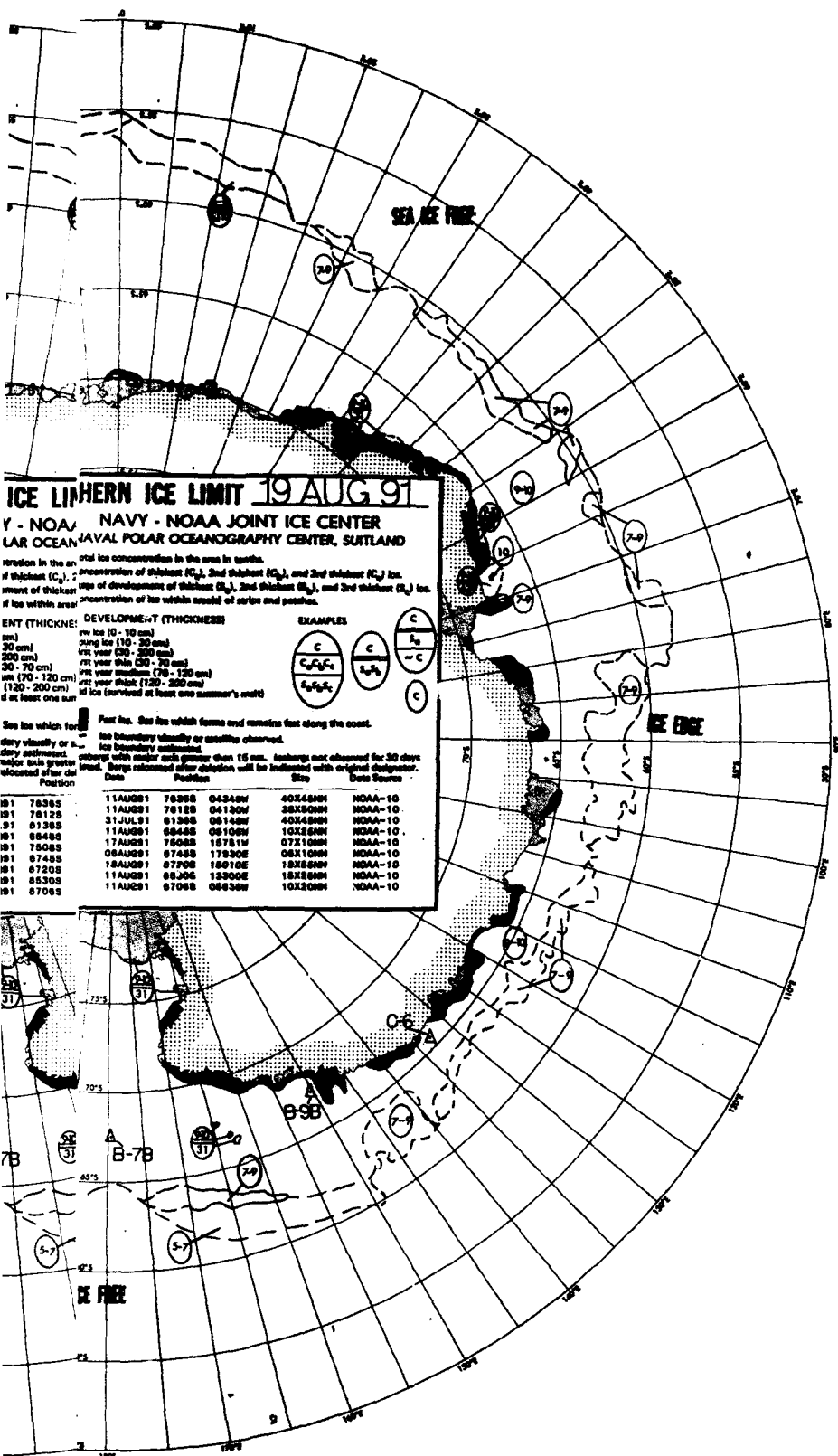


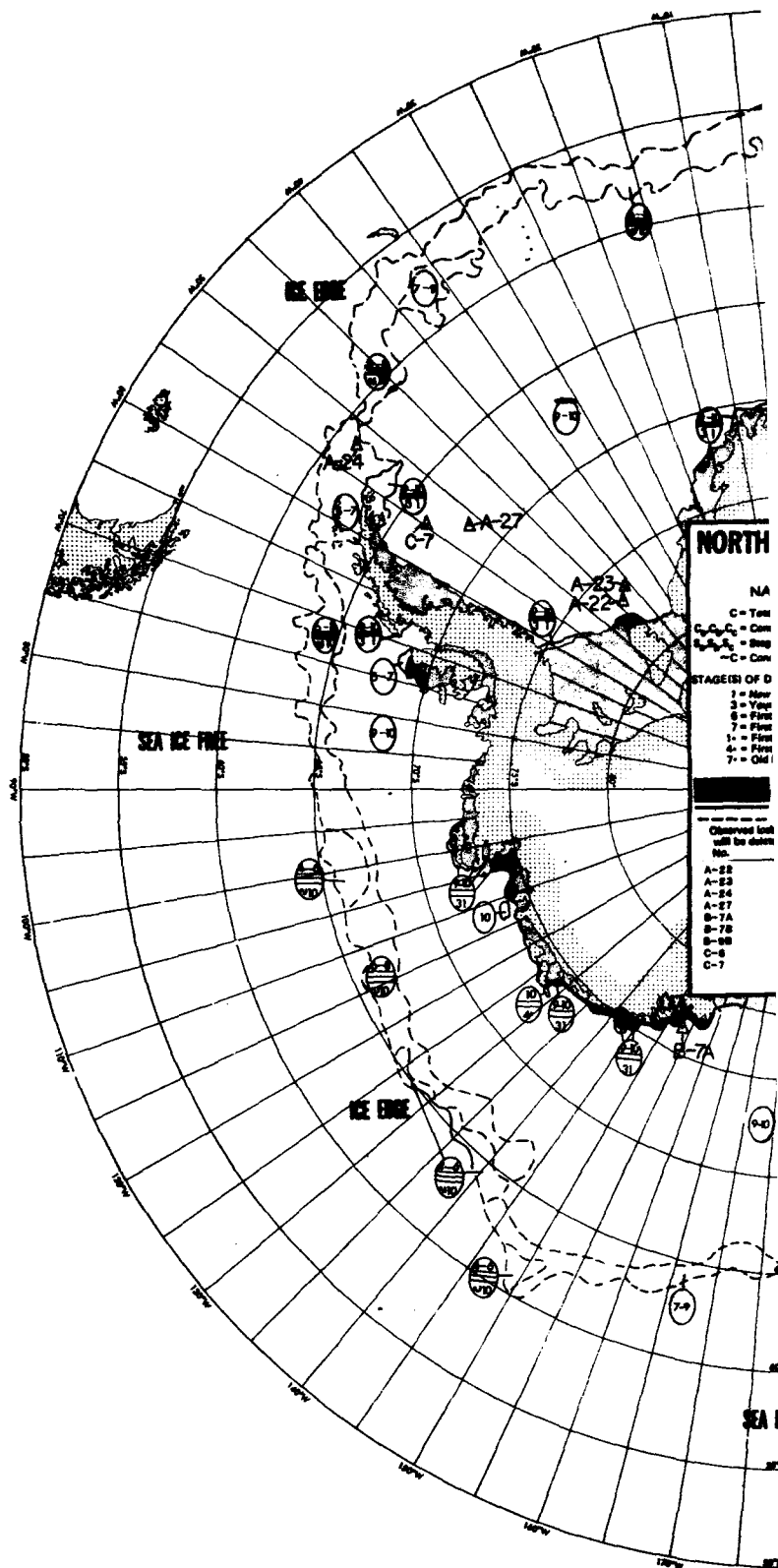


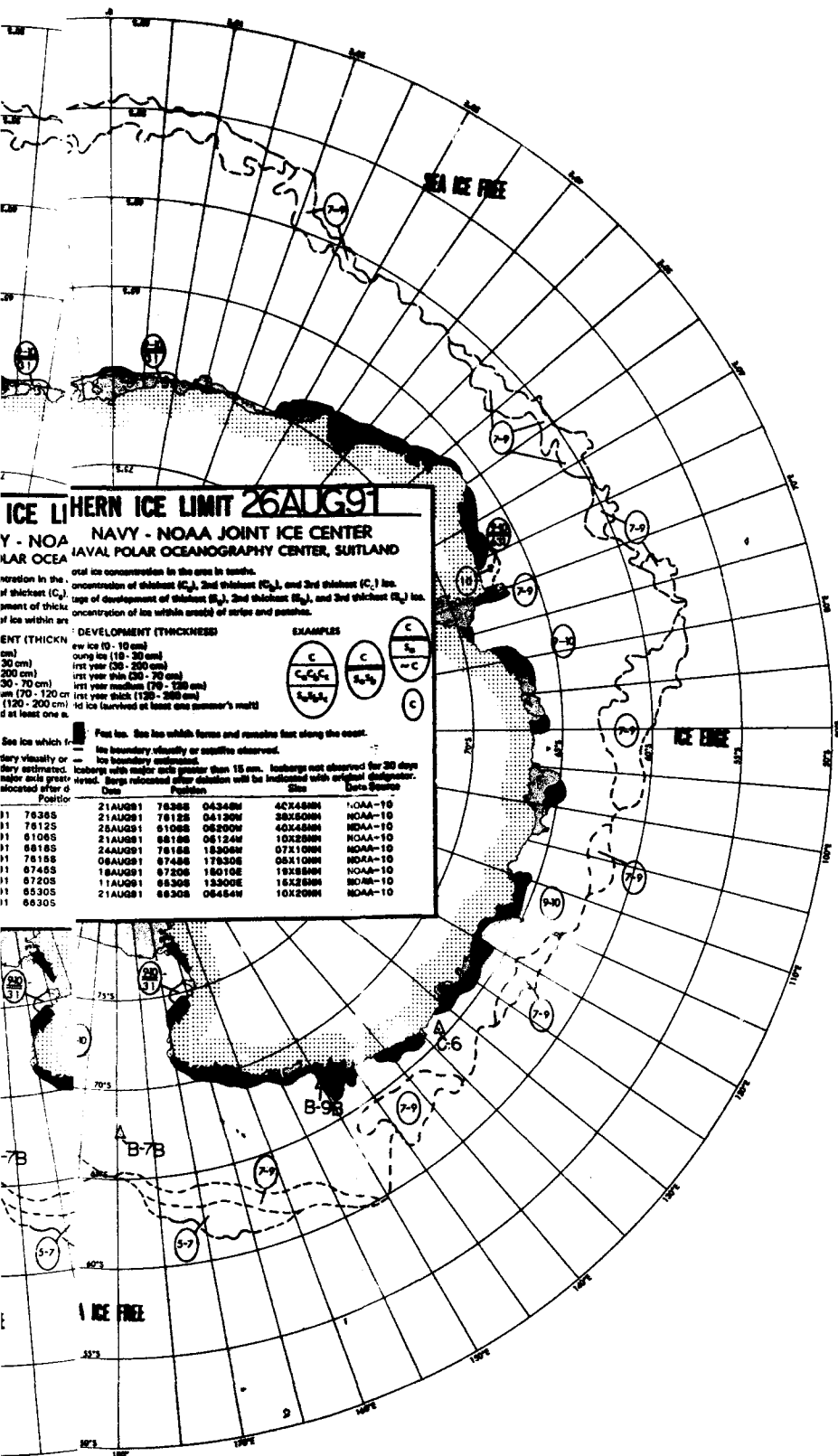


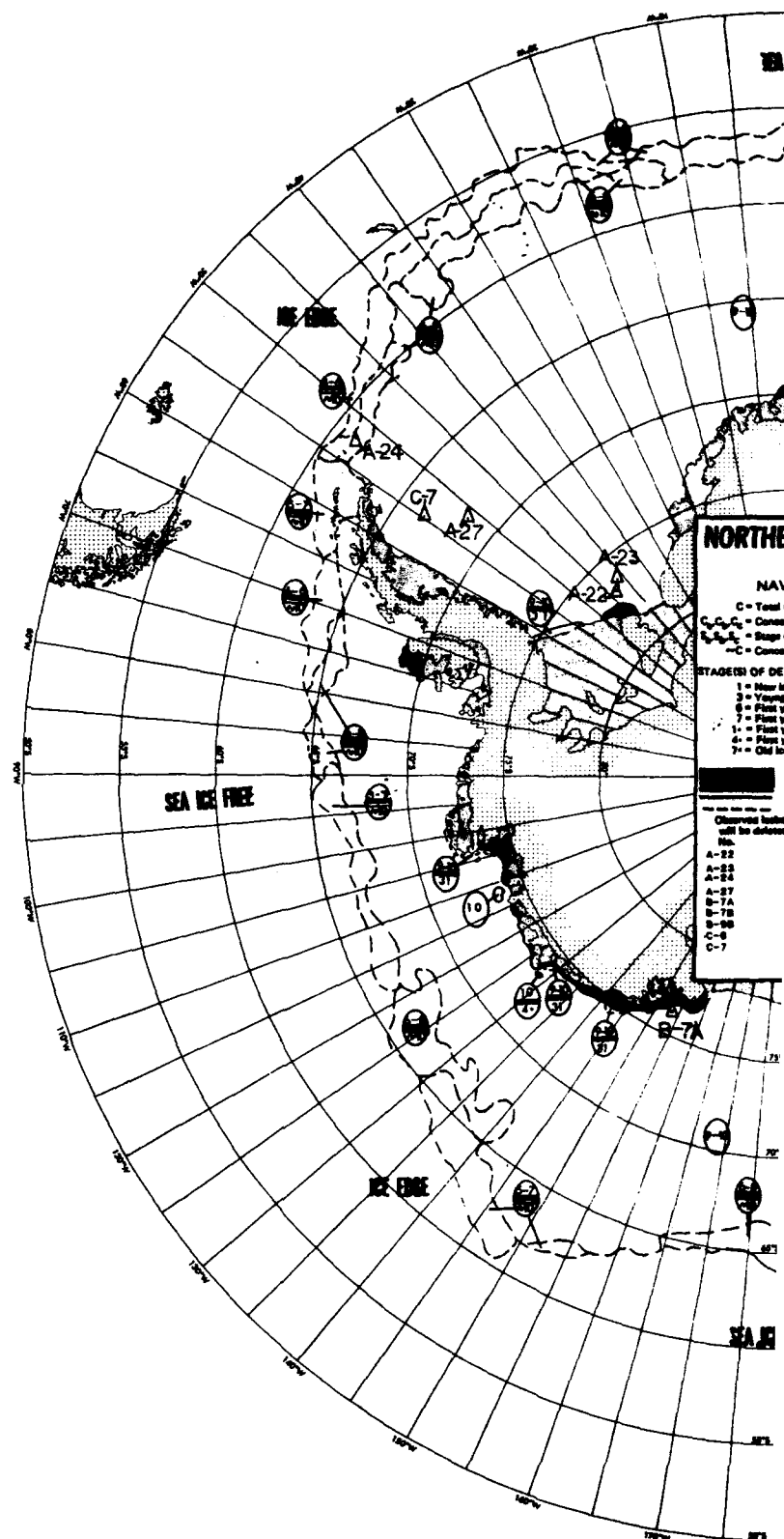


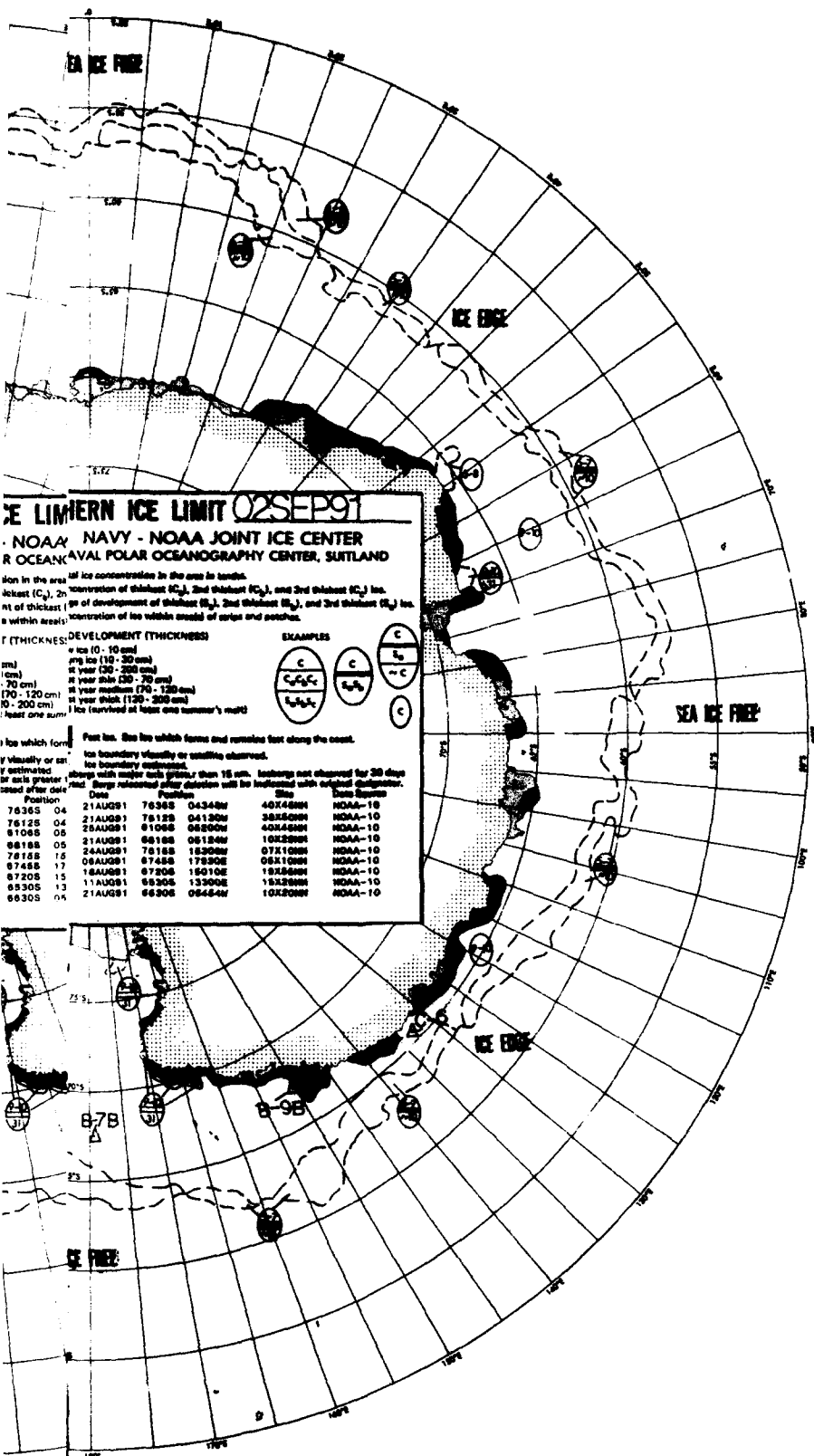


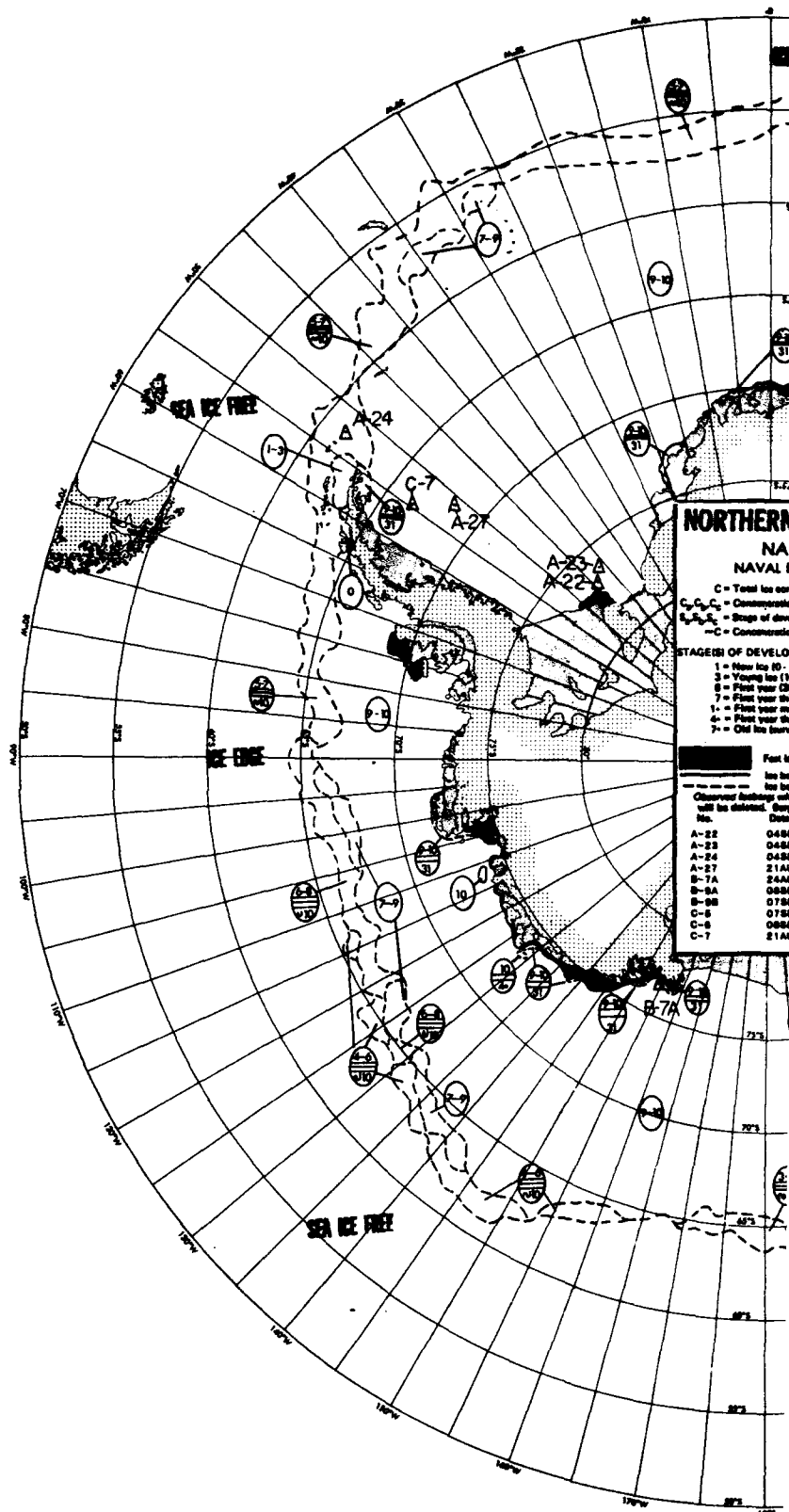


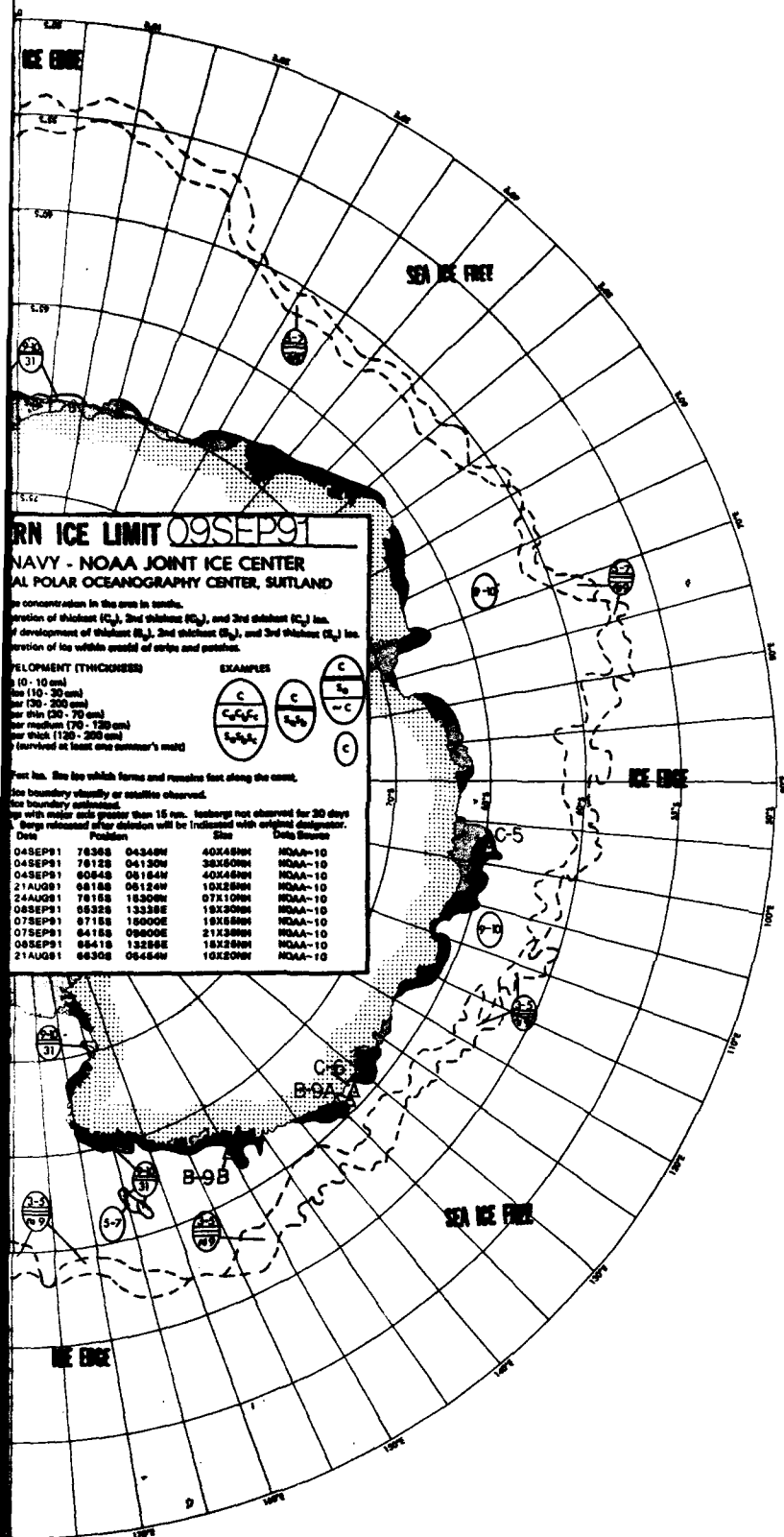


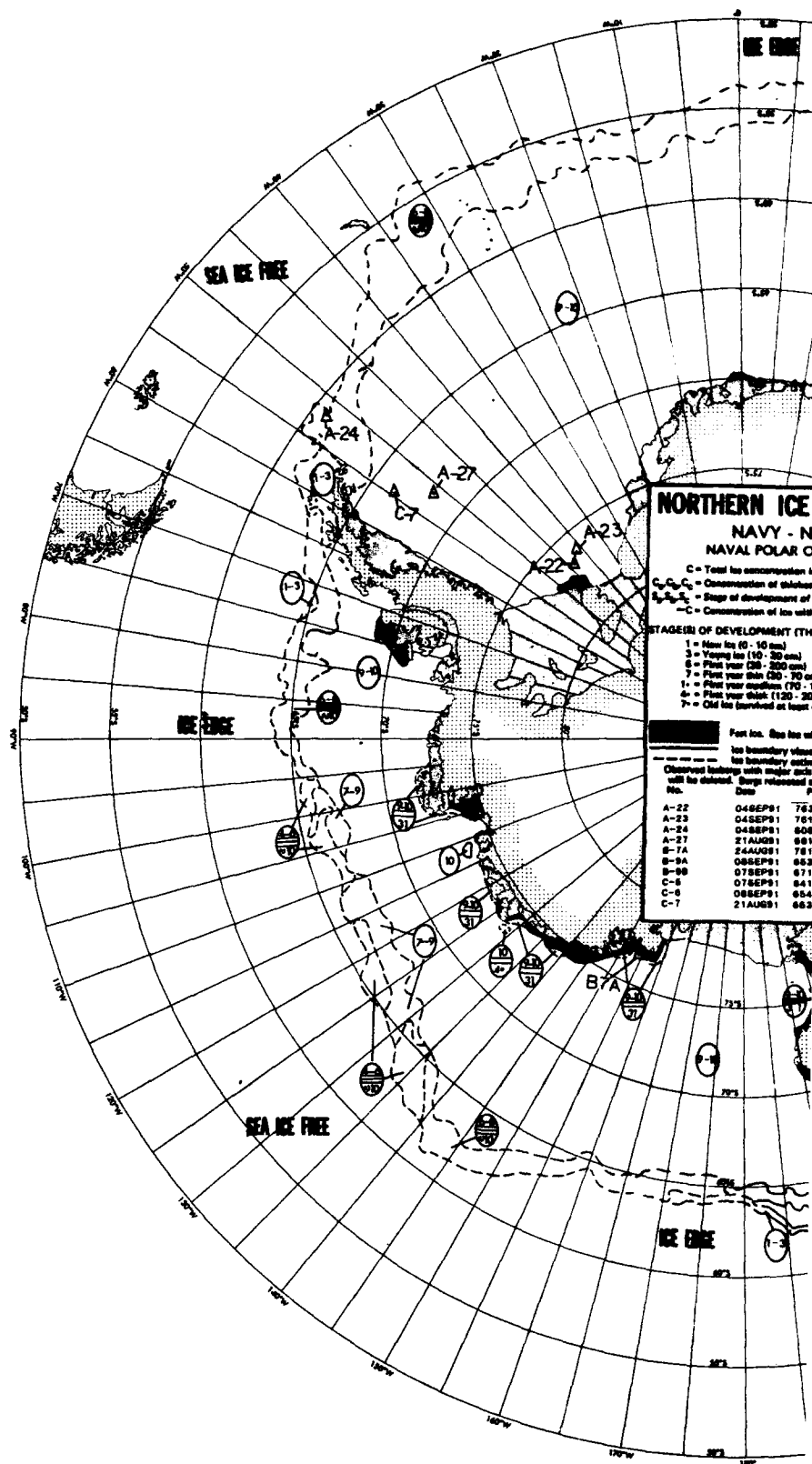


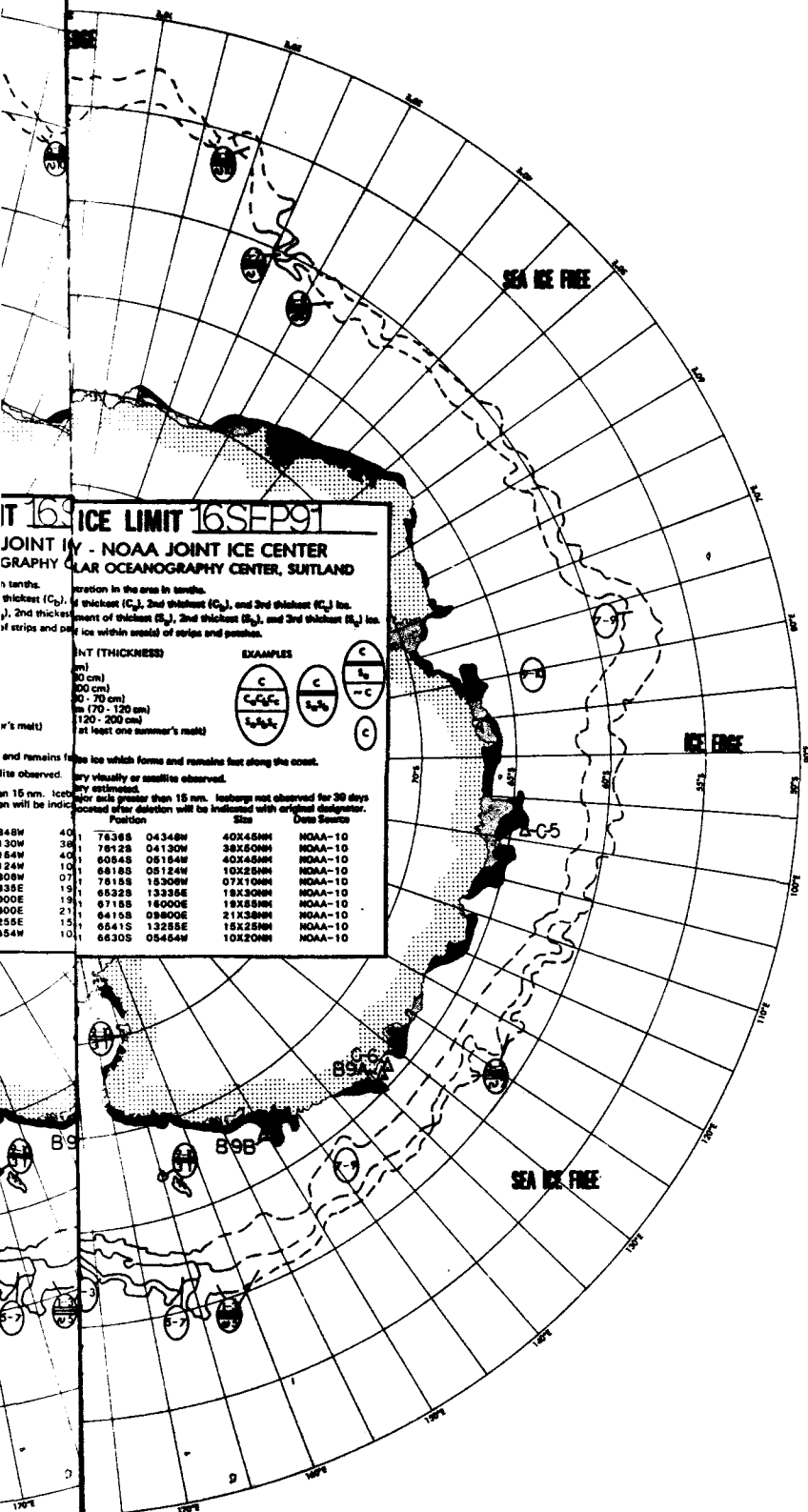


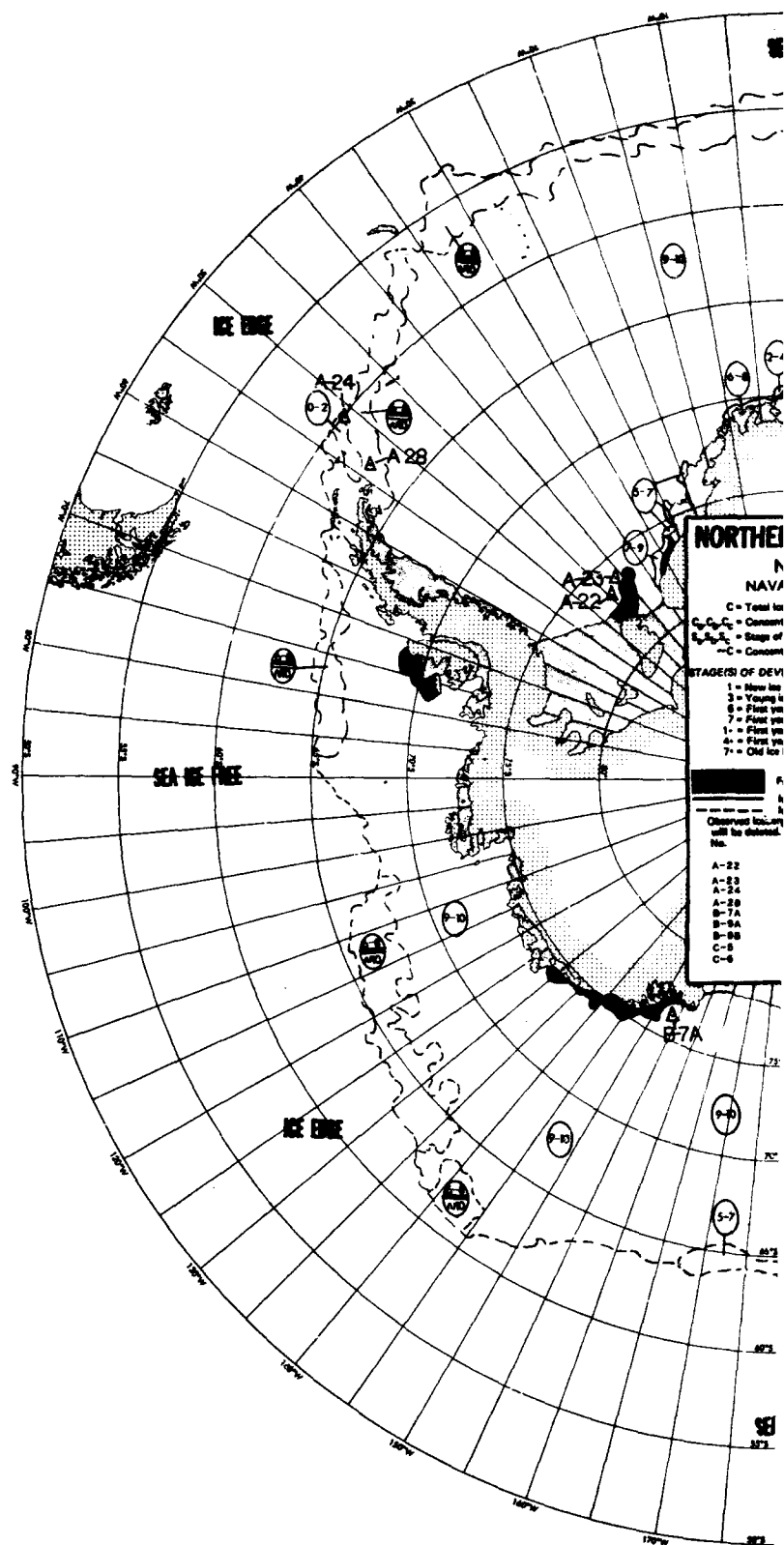


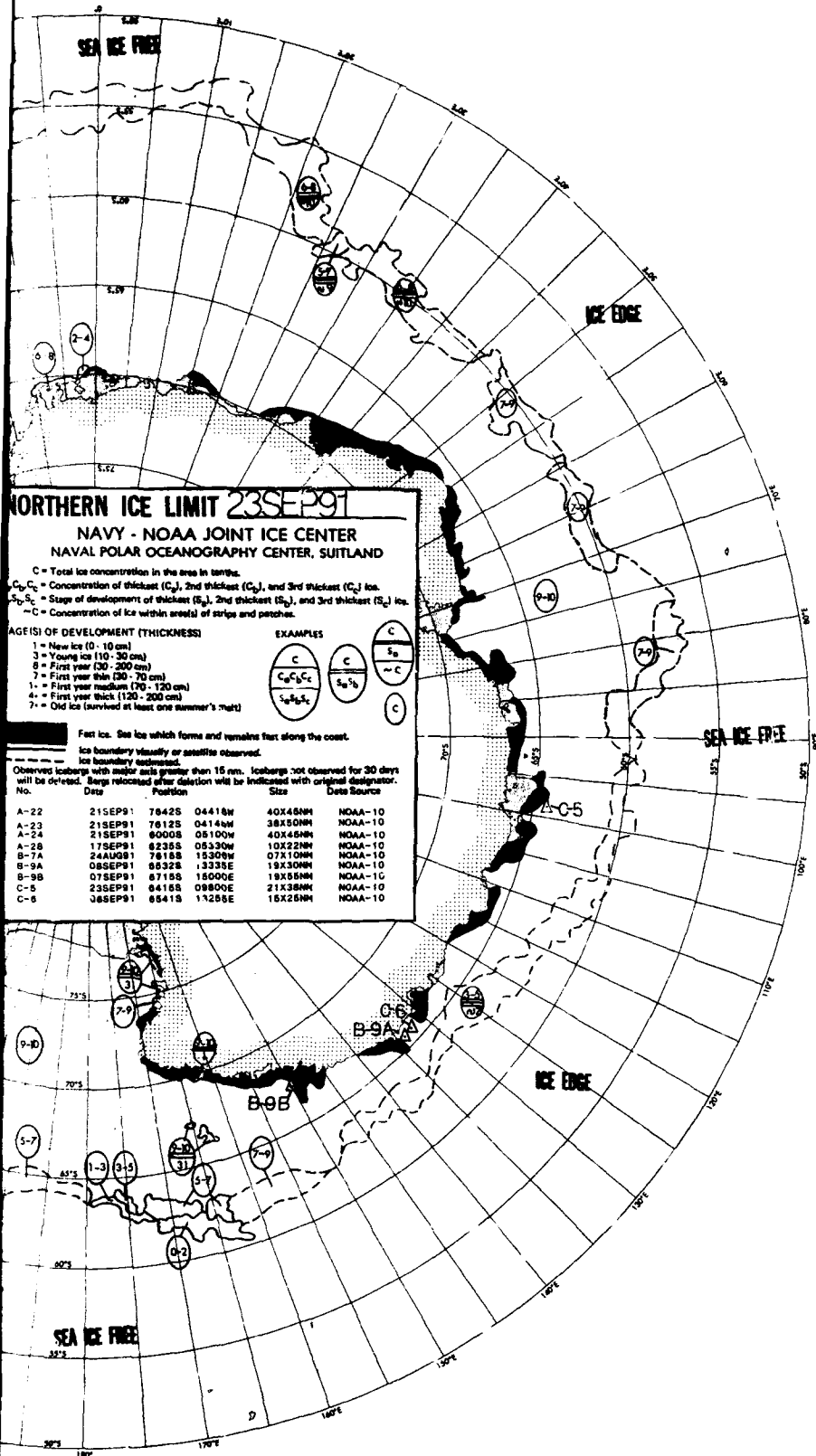


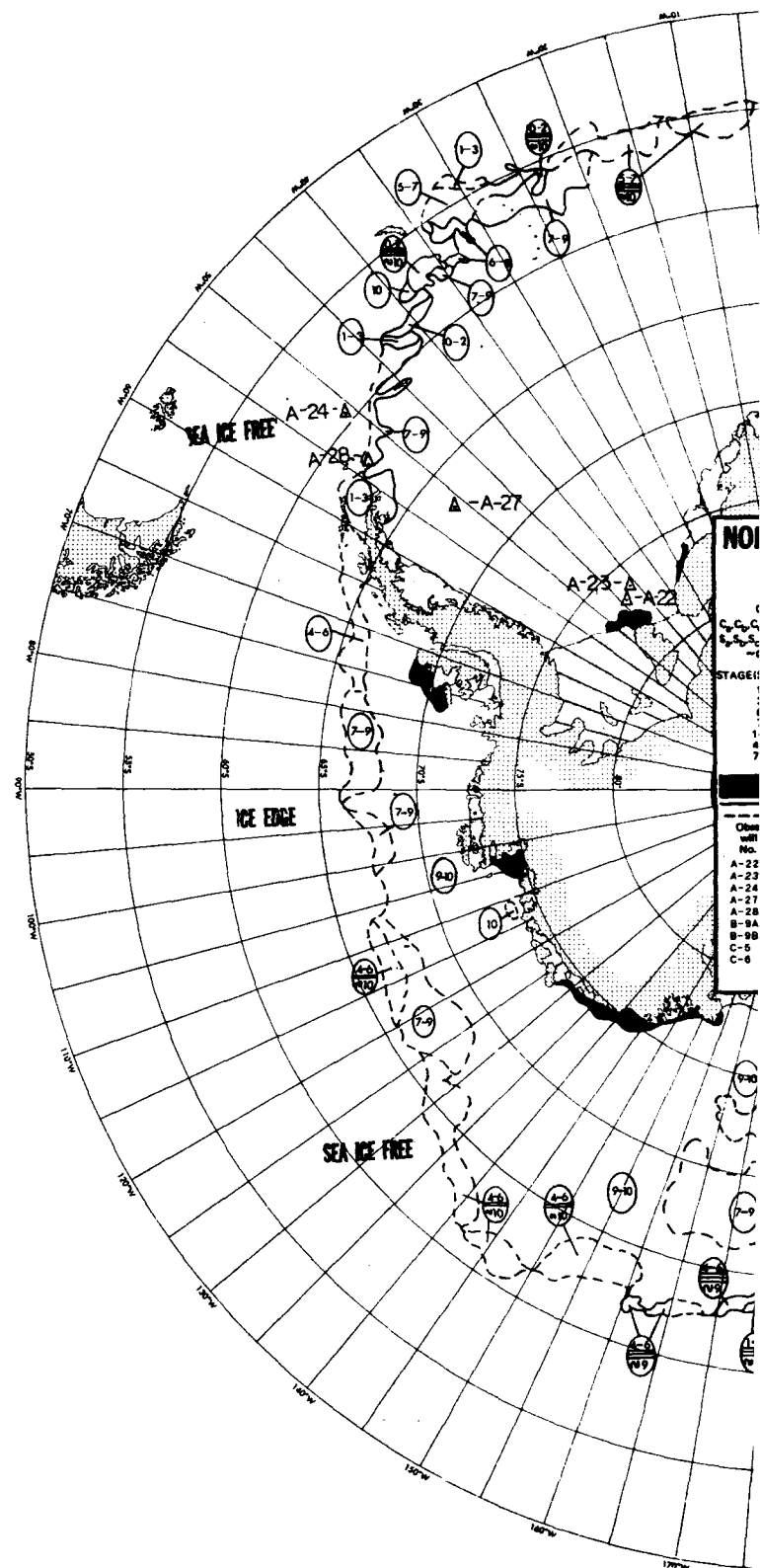


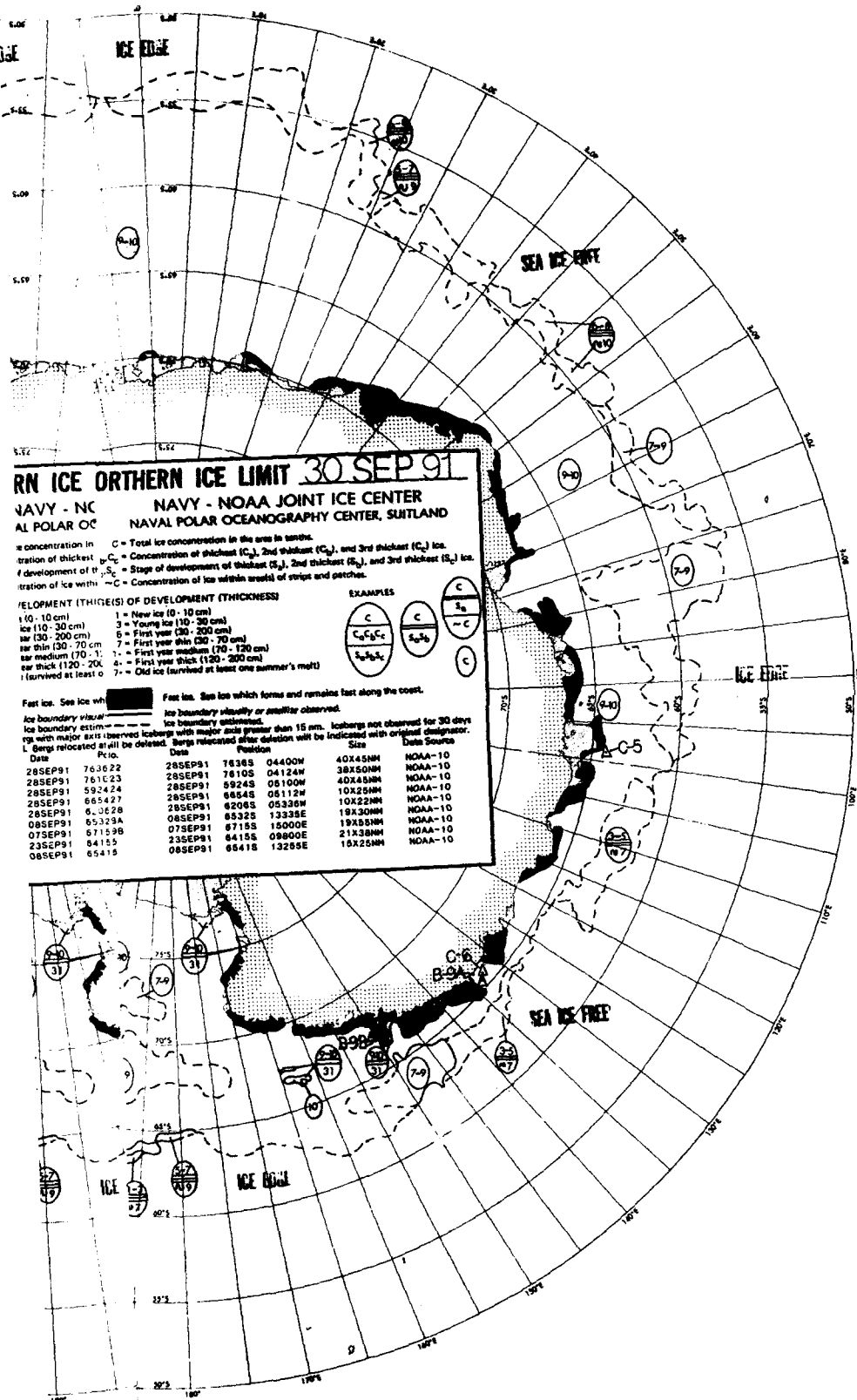


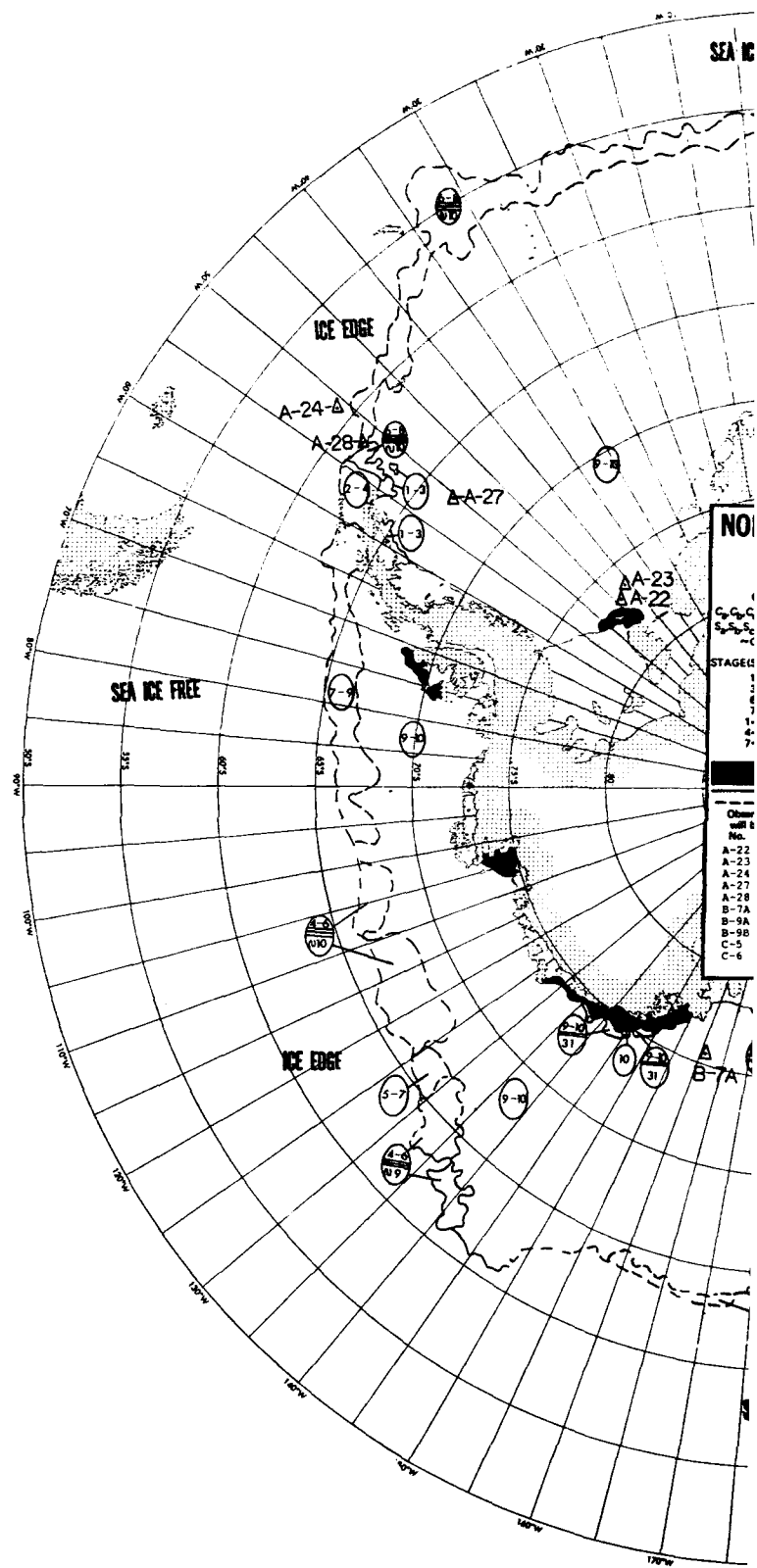


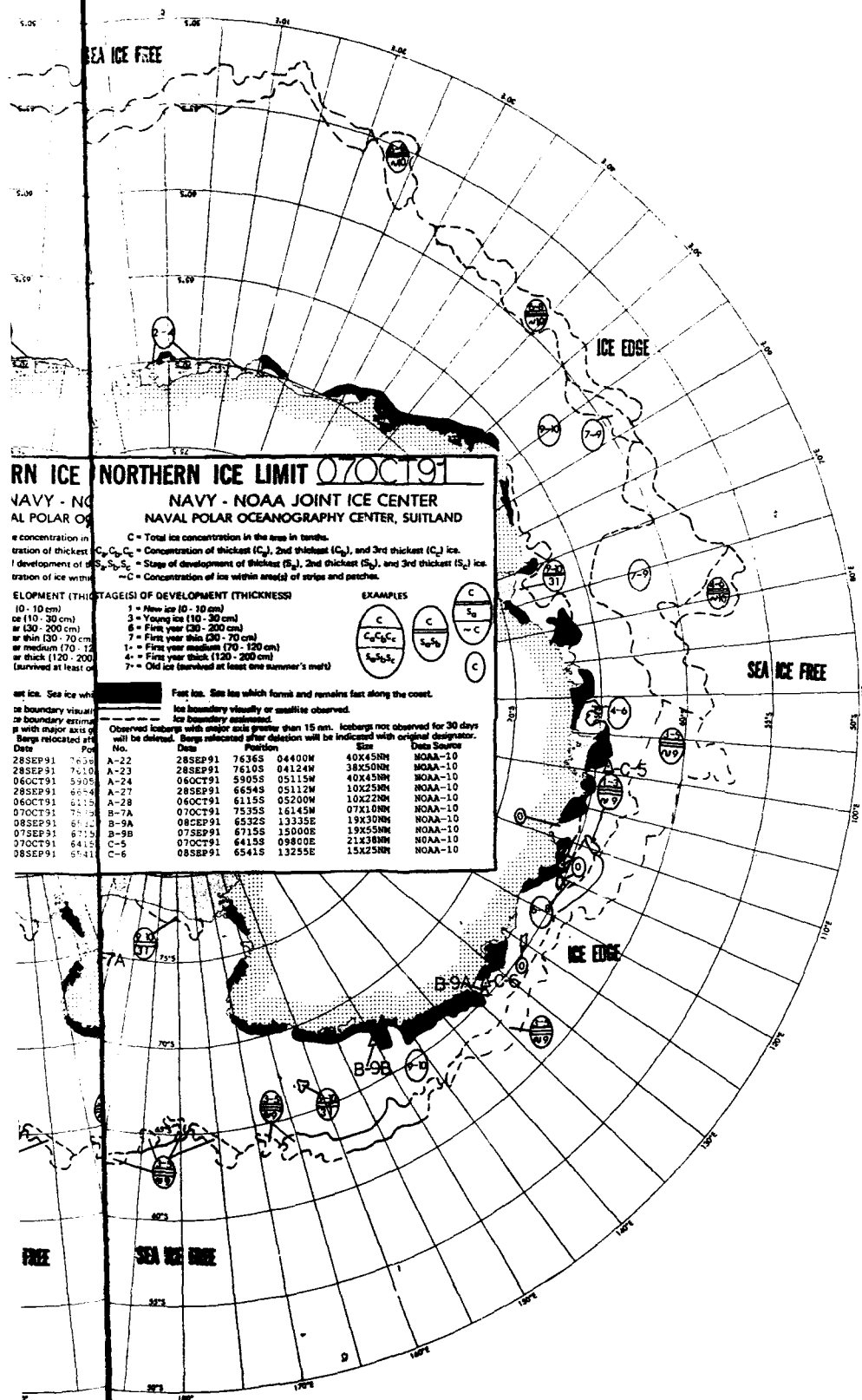


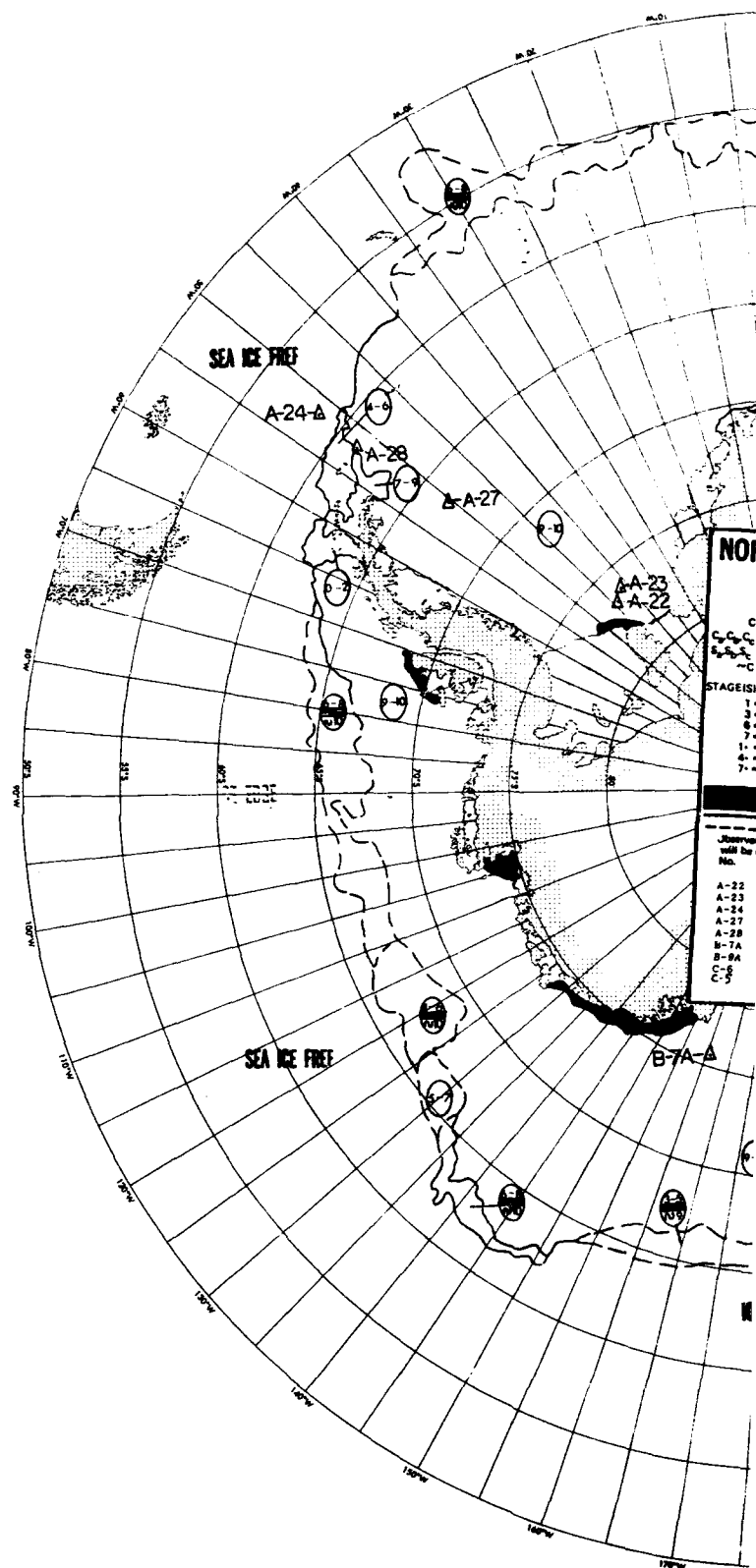


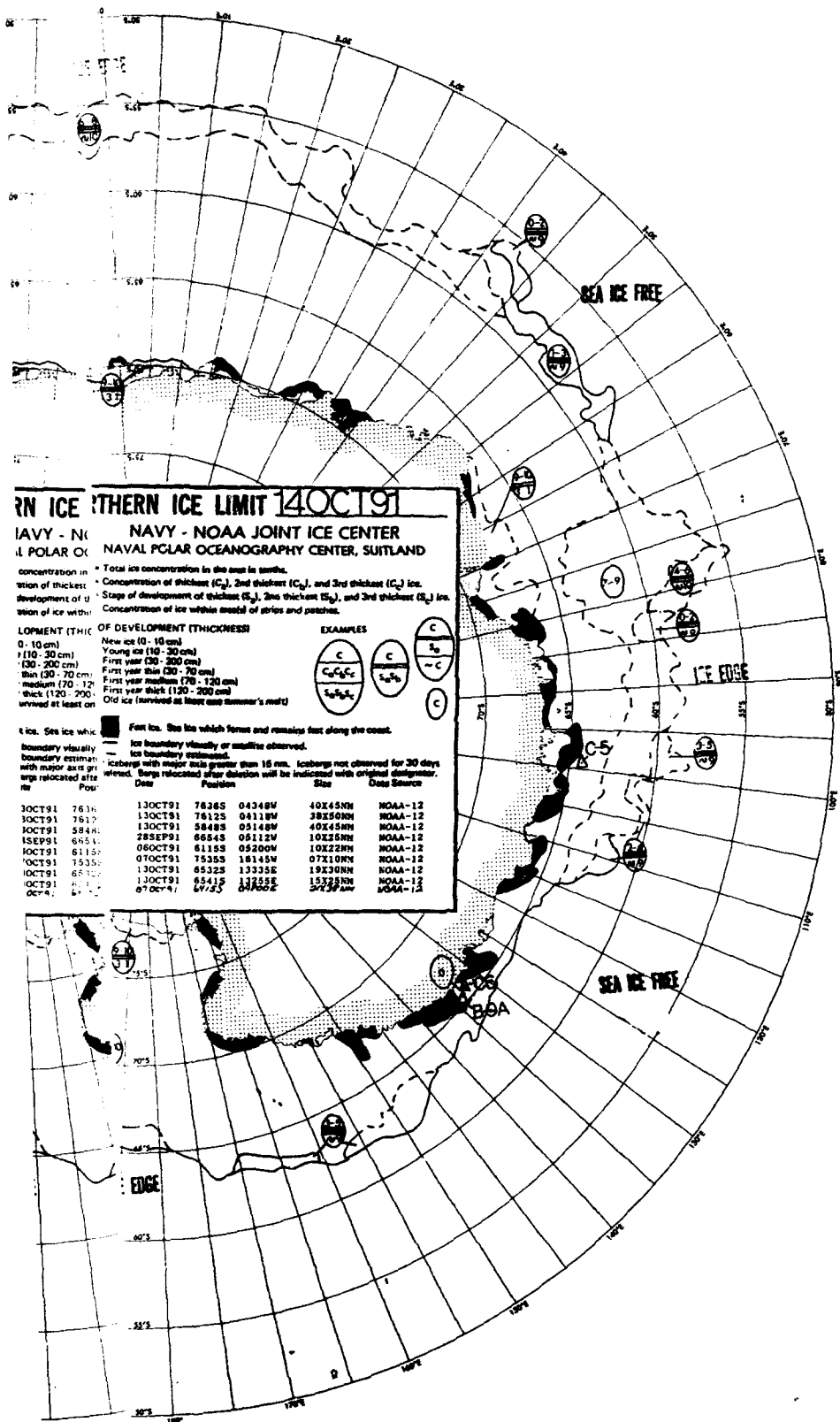


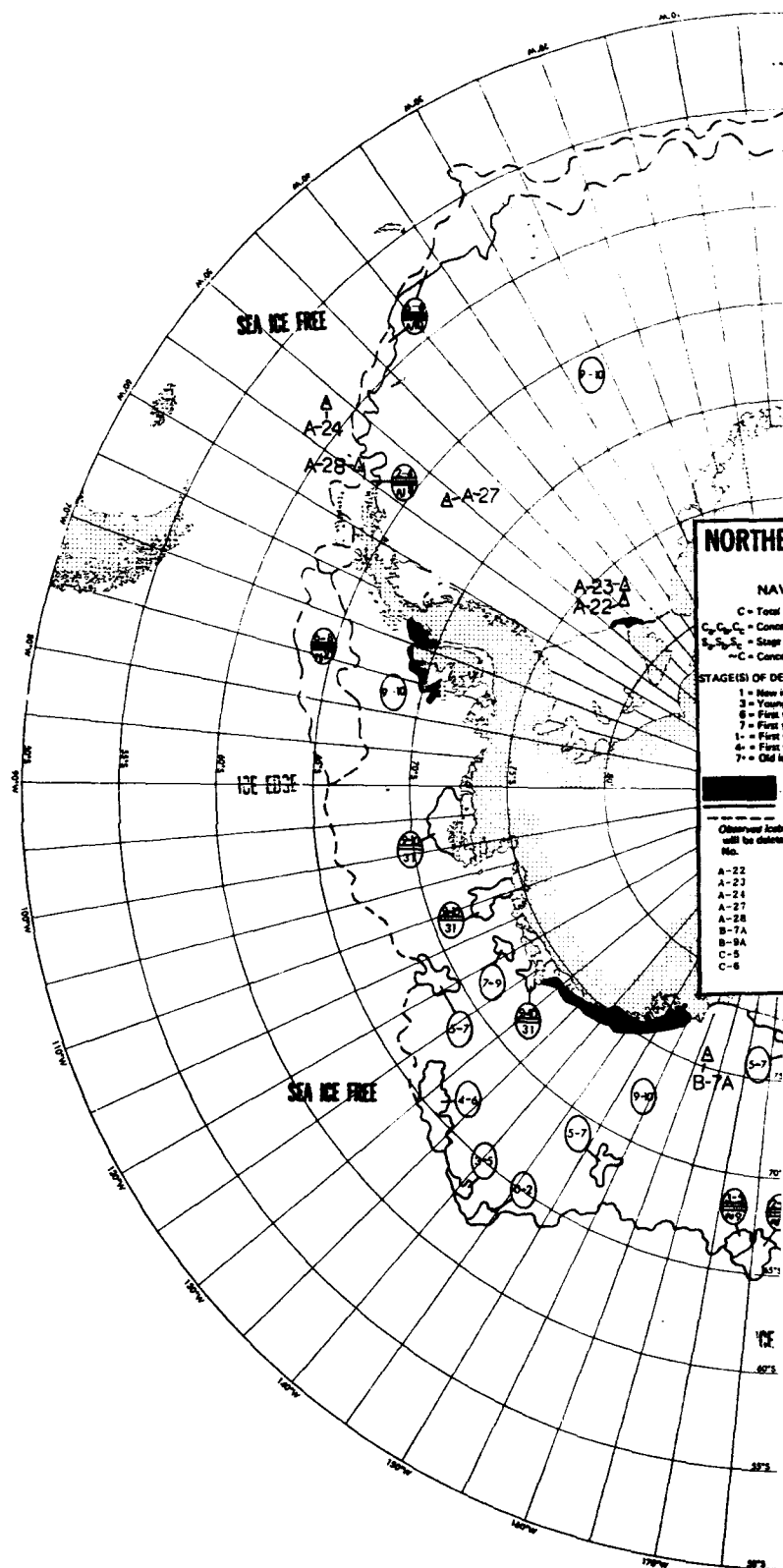












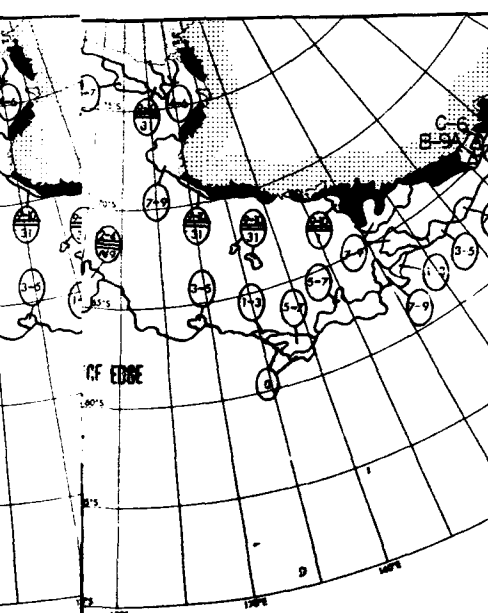
ICE LIMIT 21 OCT 91 NOAA NAVY - NOAA JOINT ICE CENTER R OCEANO NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

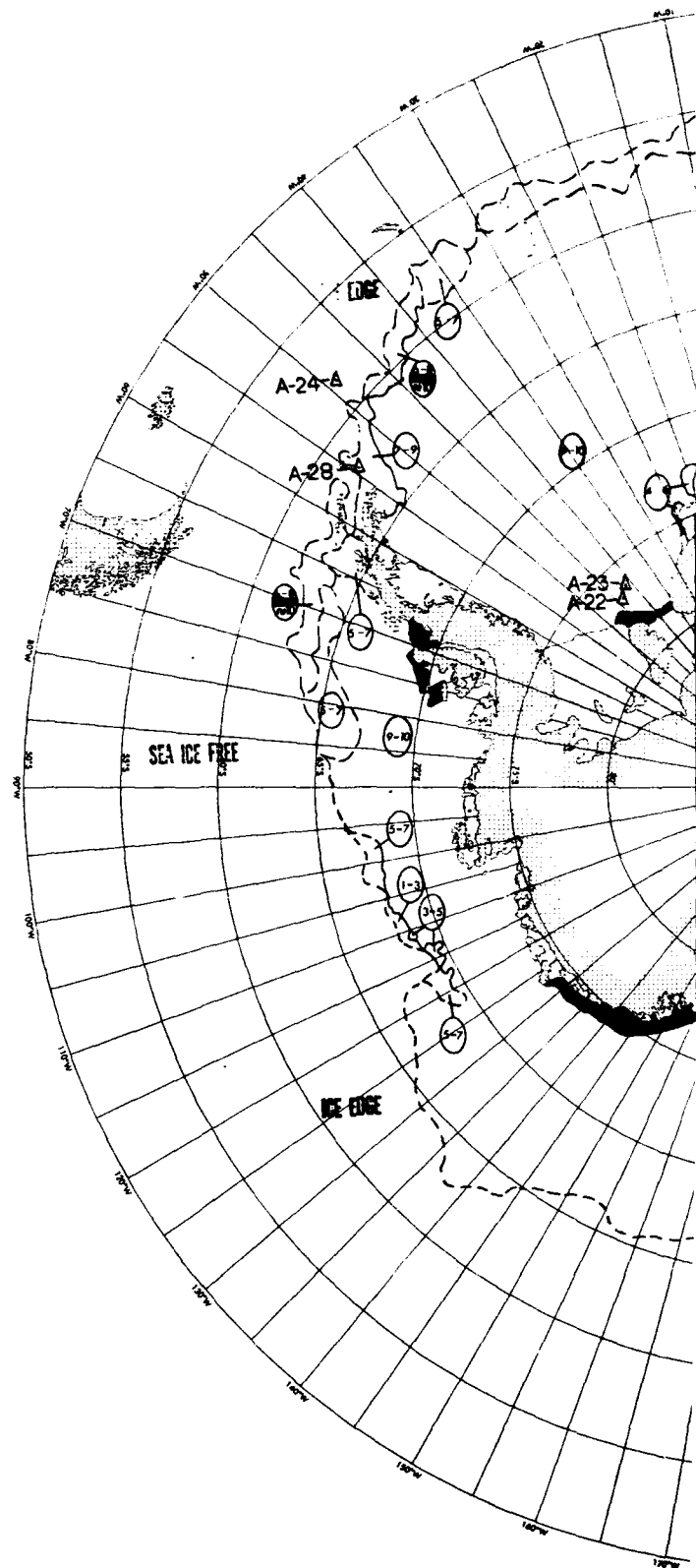
tion in the area -
Total ice concentration in the area in tenths.
Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
Concentration of ice within areal of strips and patches.
T (THICKNESS) OF DEVELOPMENT (THICKNESS)
New ice (10 - 10 cm)
Young ice (10 - 30 cm)
First year (30 - 200 cm)
First year thin (30 - 70 cm)
(70 - 120 cm)
First year medium (70 - 120 cm)
First year thick (120 - 200 cm)
Old ice (survived at least one summer's melt)

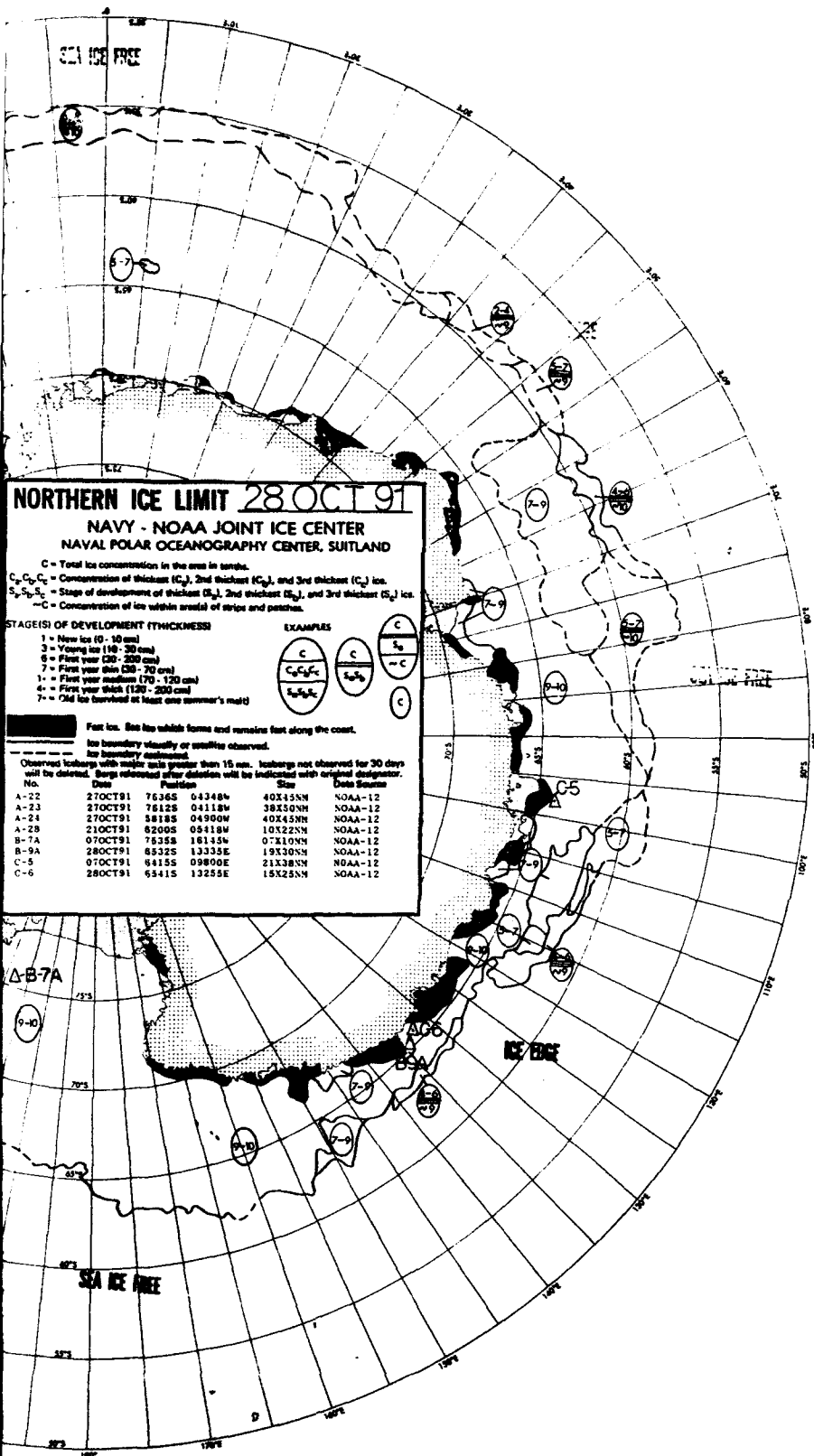
EXAMPLES

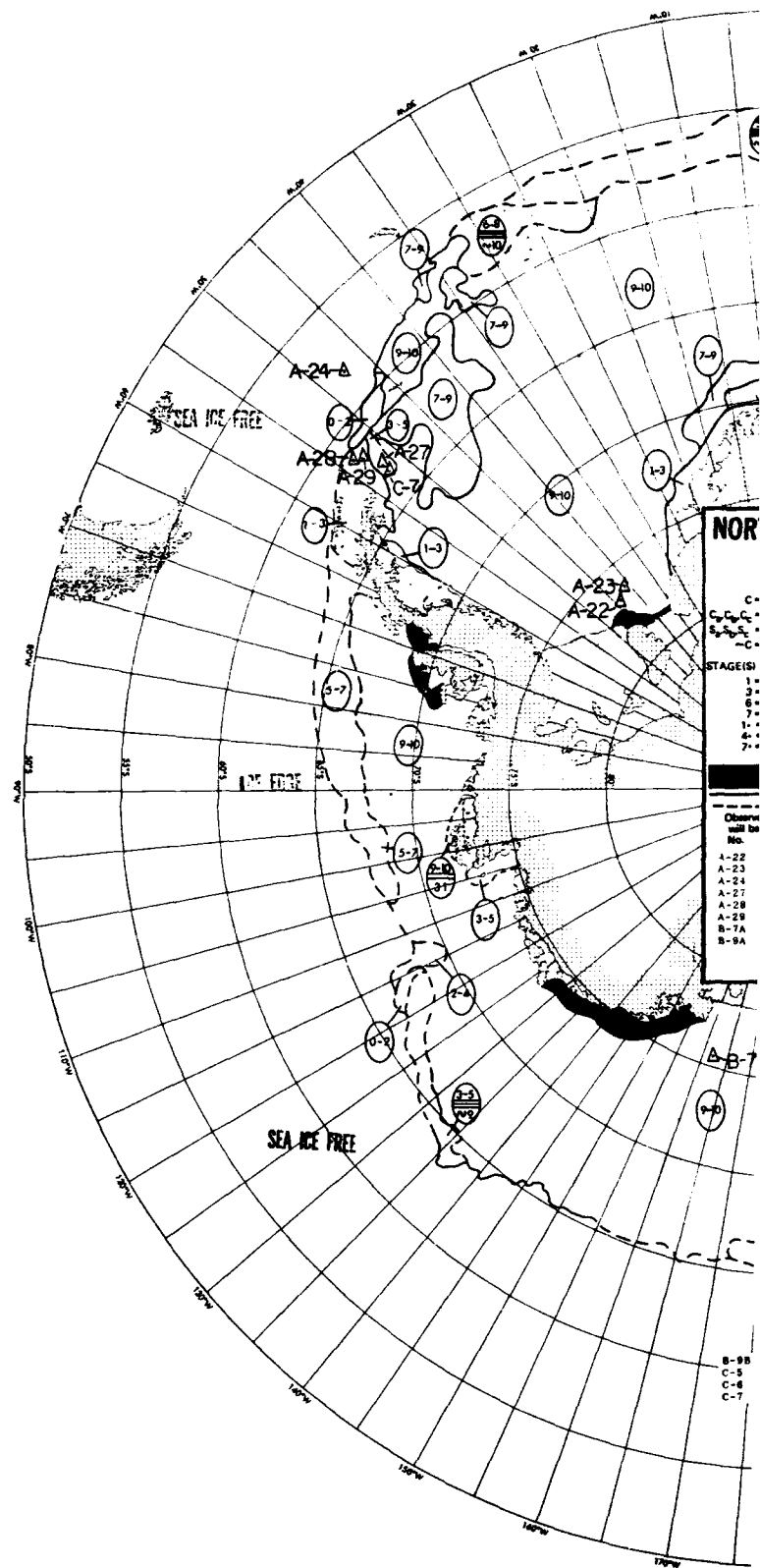
$\frac{C_1}{S_1} \frac{C_2}{S_2} \frac{C_3}{S_3}$
 $\frac{C_1}{S_1} \frac{C_2}{S_2} \frac{C_3}{S_3}$
 $\frac{C_1}{S_1} \frac{C_2}{S_2} \frac{C_3}{S_3}$

Position	Date	Size	Data Source
7636S 0	13OCT91	7636S 04348W	40X45NM NOAA-12
7612S 0	13OCT91	7612S 04118W	38X50NM NOAA-12
5836S 0	21OCT91	5836S 05106W	40X45NM NOAA-12
6654S 0	28SEP91	6654S 05112W	10X25NM NOAA-12
6200S 0	21OCT91	6200S 05418W	10X22NM NOAA-12
7535S 1	07OCT91	7535S 16145W	07X10NM NOAA-12
6532S 1	21OCT91	6532S 13335E	19X30NM NOAA-12
6415S 0	07OCT91	6415S 09800E	21X38NM NOAA-12
6541S 1	21OCT91	6541S 13255E	15X25NM NOAA-12









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concentration in the
tion of thickest (C)
development of the
tion of ice within
OPMENT (THICKI
1-10 cm)
(10-30 cm)
(30-200 cm)
thin (30-70 cm)
medium (70-120
thick (120-200
arrived at least on

ice. See ice whic
boundary visually
boundary estimat
with major axis of
bergs relocated afte
ate
Pos
NOCT91 7630
NOCT91 7612
NOCT91 6416
NOCT91 6250
NOCT91 6140
NOCT91 6110
NOCT91 7515
NOCT91 6530

NORTHERN ICE LIMIT 04 NOV 91

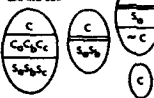
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
C₁C₂C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
S₁S₂S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
-C = Concentration of ice within areal of strips and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0-10 cm)
- 2 = Young ice (10-30 cm)
- 3 = First year thin (30-70 cm)
- 4 = First year medium (70-120 cm)
- 5 = First year thick (120-200 cm)
- 6 = Old ice (survived at least one summer's melt)

EXAMPLES



Fast ice. See ice which forms and remains fast along the coast.
Ice boundary visually or satellite observed.
Ice boundary estimated.
Observed icebergs with major axis greater than 15 m. Icebergs not observed for 30 days will be deleted. Bergs relocated after deletion will be indicated with original designation.

No.	Date	Position	Size	Data Source
A-22	27OCT91	78365 04348N	40X15NM	NOAA-12
A-23	27OCT91	78125 04118W	38X30NM	NOAA-12
A-24	04NOV91	88165 04728W	40X15NM	NOAA-12
A-27	27OCT91	62505 05220W	10X25NM	DMSP-F9
A-28	27OCT91	61305 05310W	10X22NM	DMSP-F9
A-29	27OCT91	61405 05300W	10X20NM	DMSP-F9
B-7A	07OCT91	75385 16145W	07X10NM	NOAA-12
B-9A	04NOV91	65305 13400E	19X30NM	NOAA-12

NOCT91 6730
NOCT91 6329
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NOCT91 6730
NOCT91 6329
NOCT91 6510
NOCT91 6320

NOCT91 6730
NOCT91 6329
NOCT91 6510
NOCT91 6320

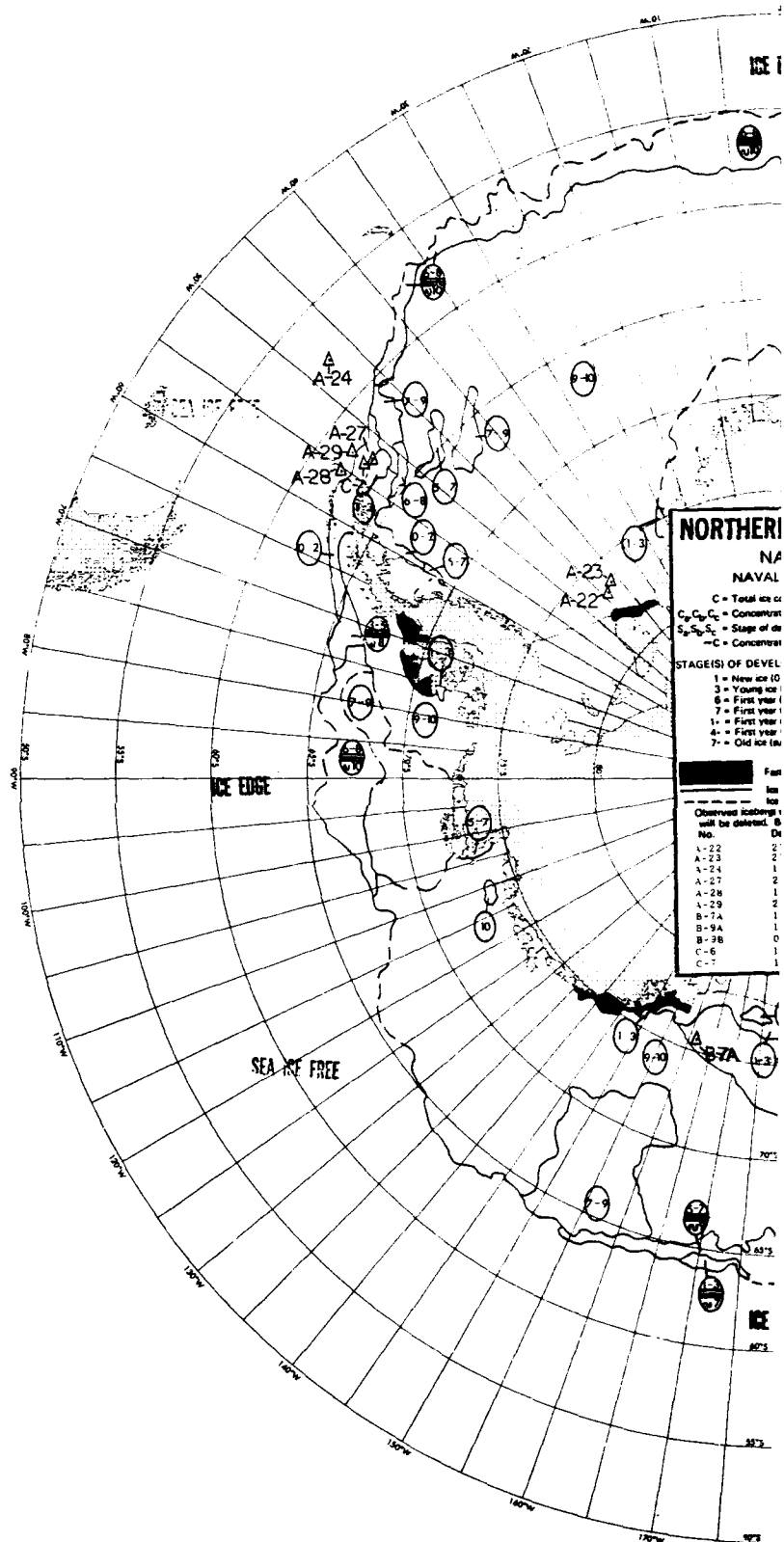
No.	Date	Position	Size	Data Source
B-9B	03NOV91	67305 15100E	19X25NM	NOAA-12
C-5	07OCT91	64155 09800E	21X38NM	NOAA-12
C-6	04NOV91	65125 13316E	15X25NM	NOAA-12
C-7	27OCT91	63205 05310W	10X20NM	DMSP-F9

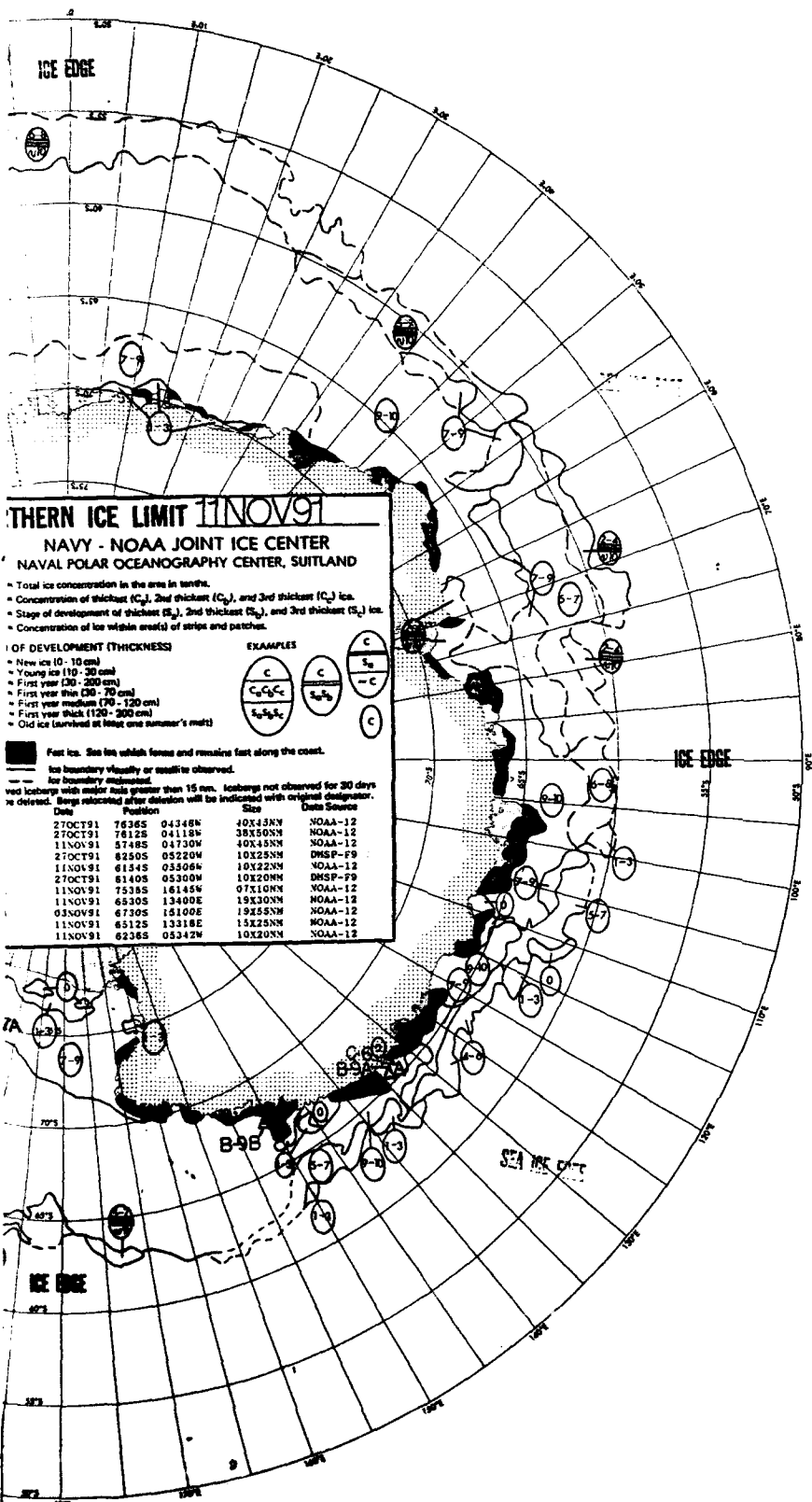
No.	Date	Position	Size	Data Source
B-9B	03NOV91	67305 15100E	19X25NM	NOAA-12
C-5	07OCT91	64155 09800E	21X38NM	NOAA-12
C-6	04NOV91	65125 13316E	15X25NM	NOAA-12
C-7	27OCT91	63205 05310W	10X20NM	DMSP-F9

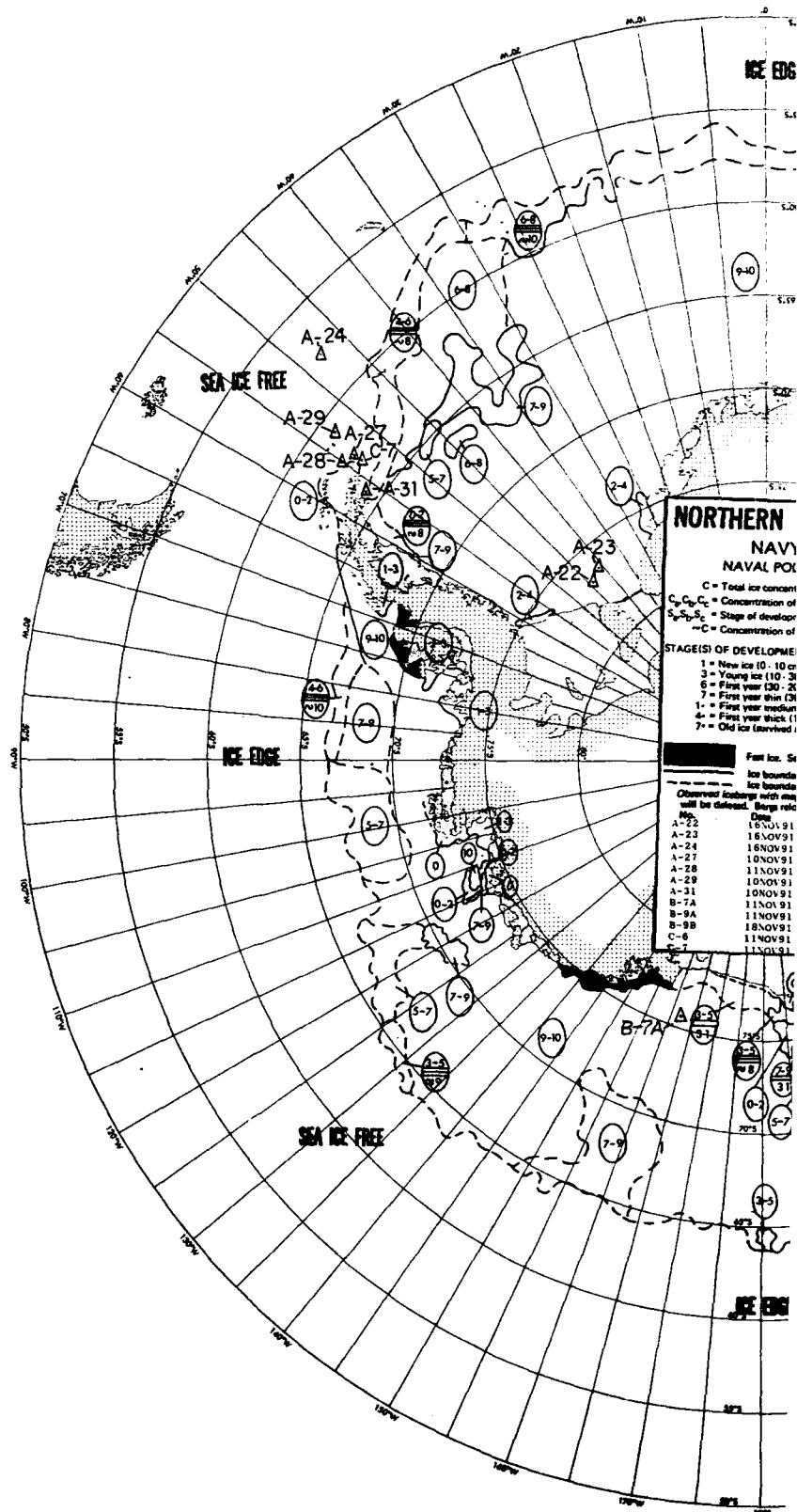
No.	Date	Position	Size	Data Source
B-9B	03NOV91	67305 15100E	19X25NM	NOAA-12
C-5	07OCT91	64155 09800E	21X38NM	NOAA-12
C-6	04NOV91	65125 13316E	15X25NM	NOAA-12
C-7	27OCT91	63205 05310W	10X20NM	DMSP-F9

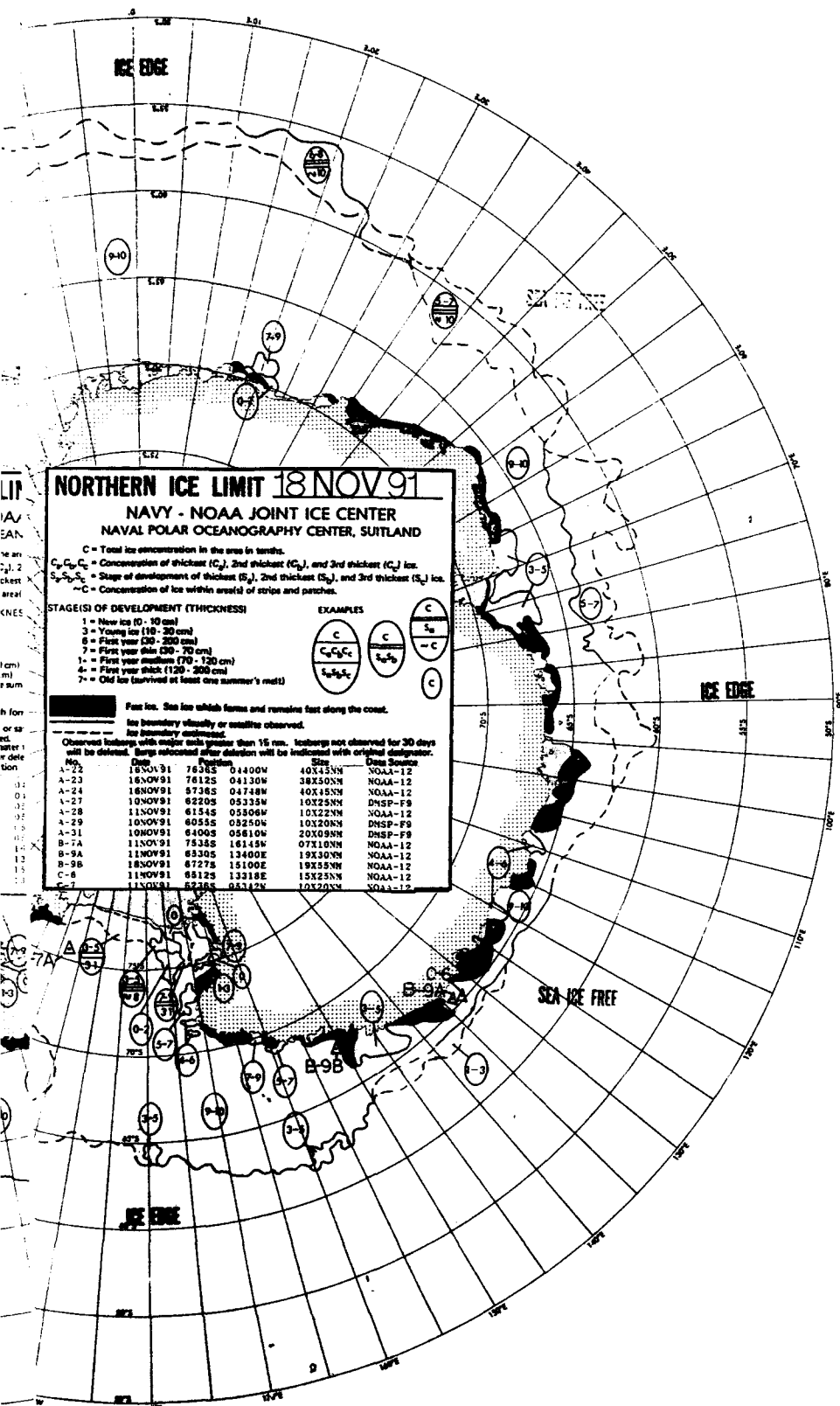
No.	Date	Position	Size	Data Source
B-9B	03NOV91	67305 15100E	19X25NM	NOAA-12
C-5	07OCT91	64155 09800E	21X38NM	NOAA-12
C-6	04NOV91	65125 13316E	15X25NM	NOAA-12
C-7	27OCT91	63205 05310W	10X20NM	DMSP-F9

No.	Date	Position	Size	Data Source
B-9B	03NOV91	67305 15100E	19X25NM	NOAA-12
C-5	07OCT91	64155 09800E	21X38NM	NOAA-12
C-6	04NOV91	65125 13316E	15X25NM	NOAA-12
C-7	27OCT91	63205 05310W	10X20NM	DMSP-F9

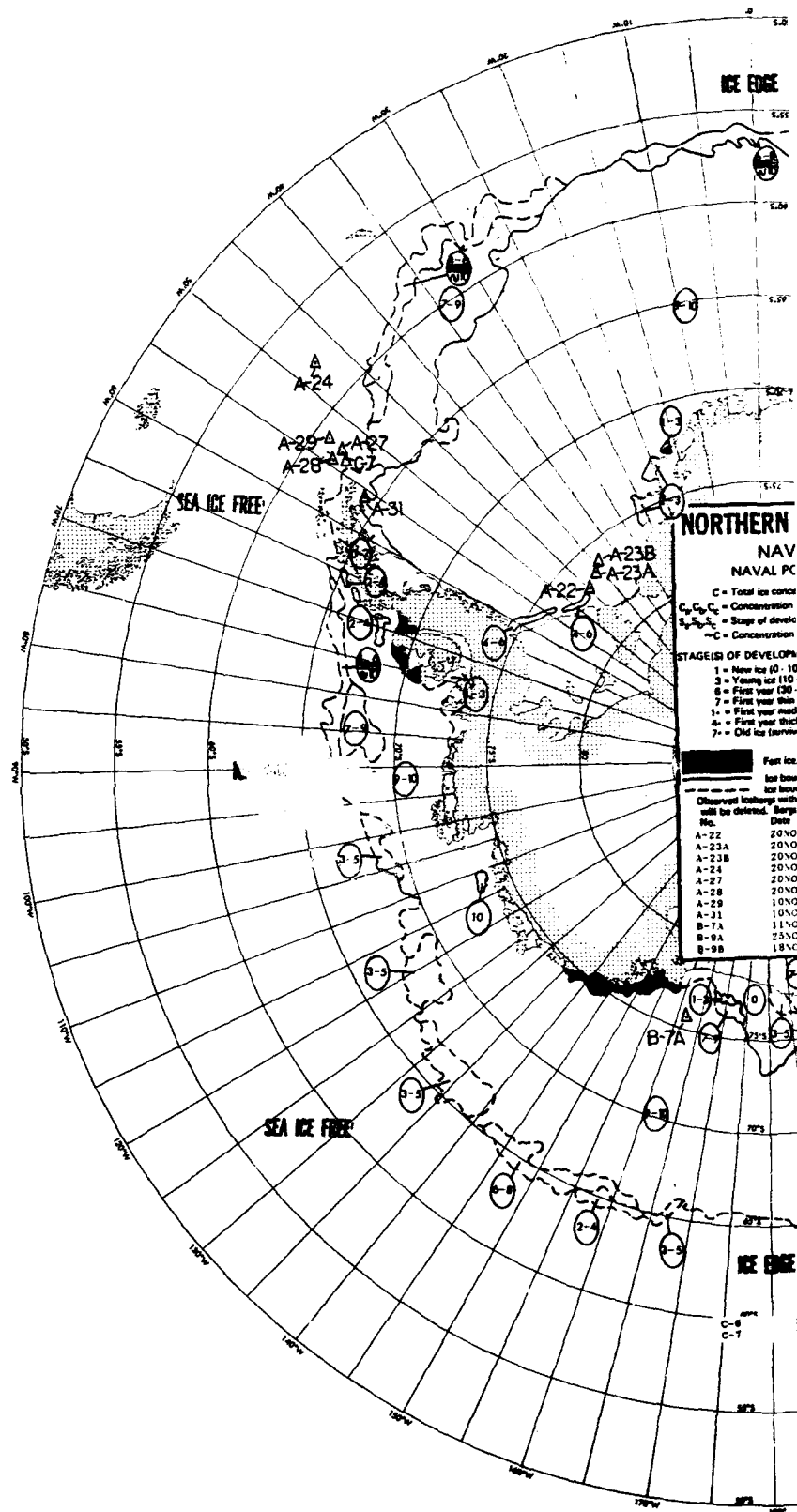


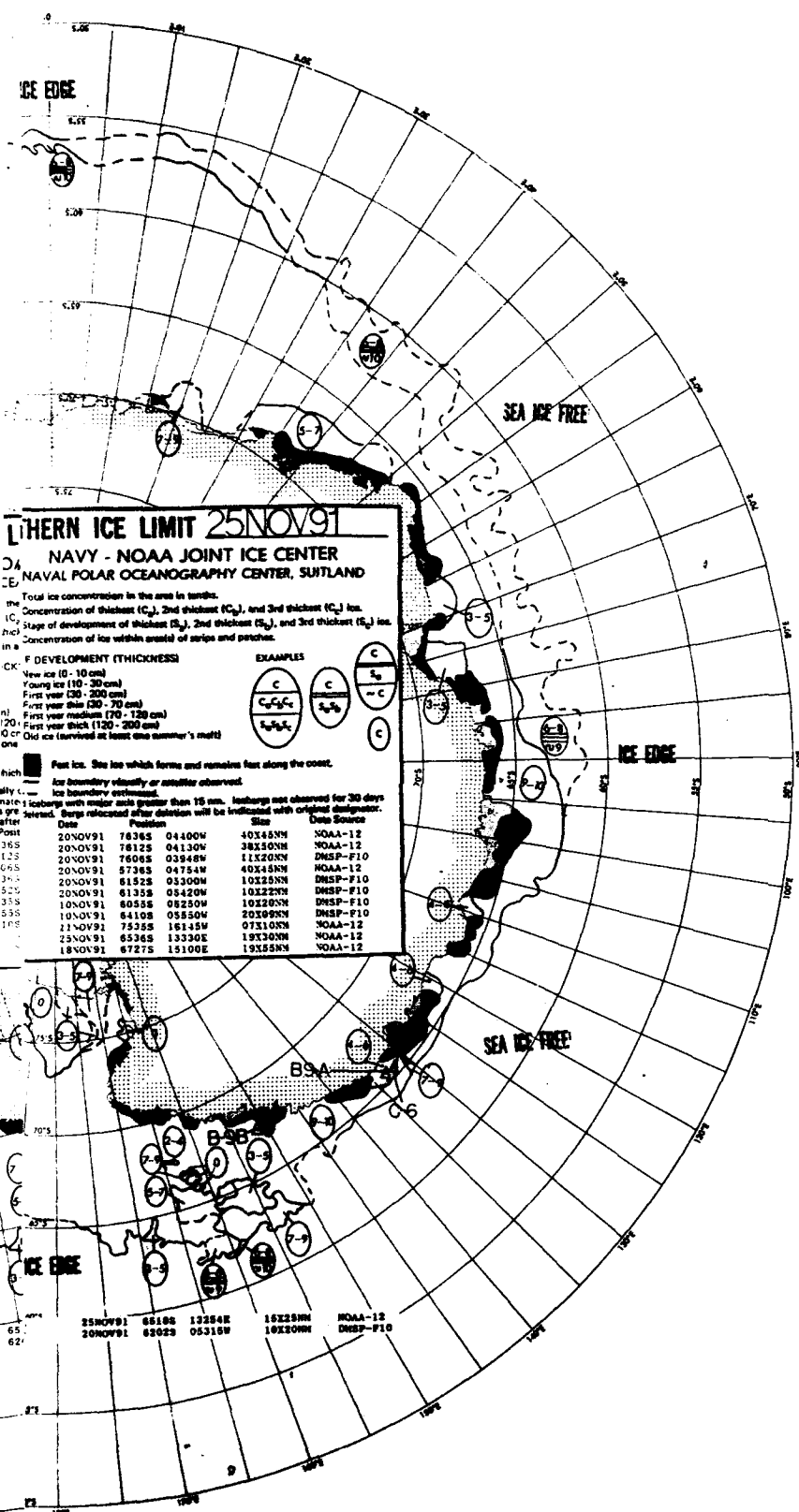


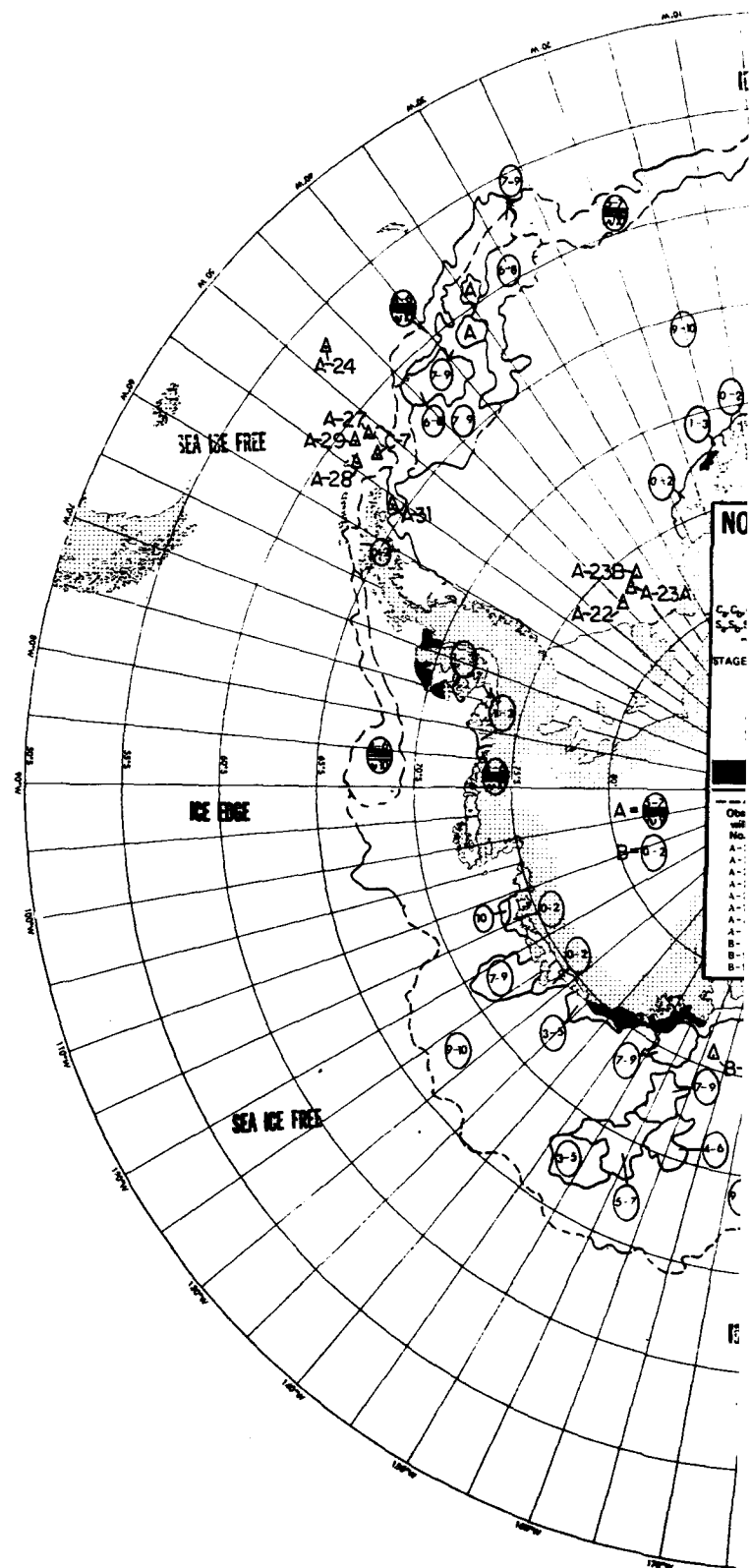


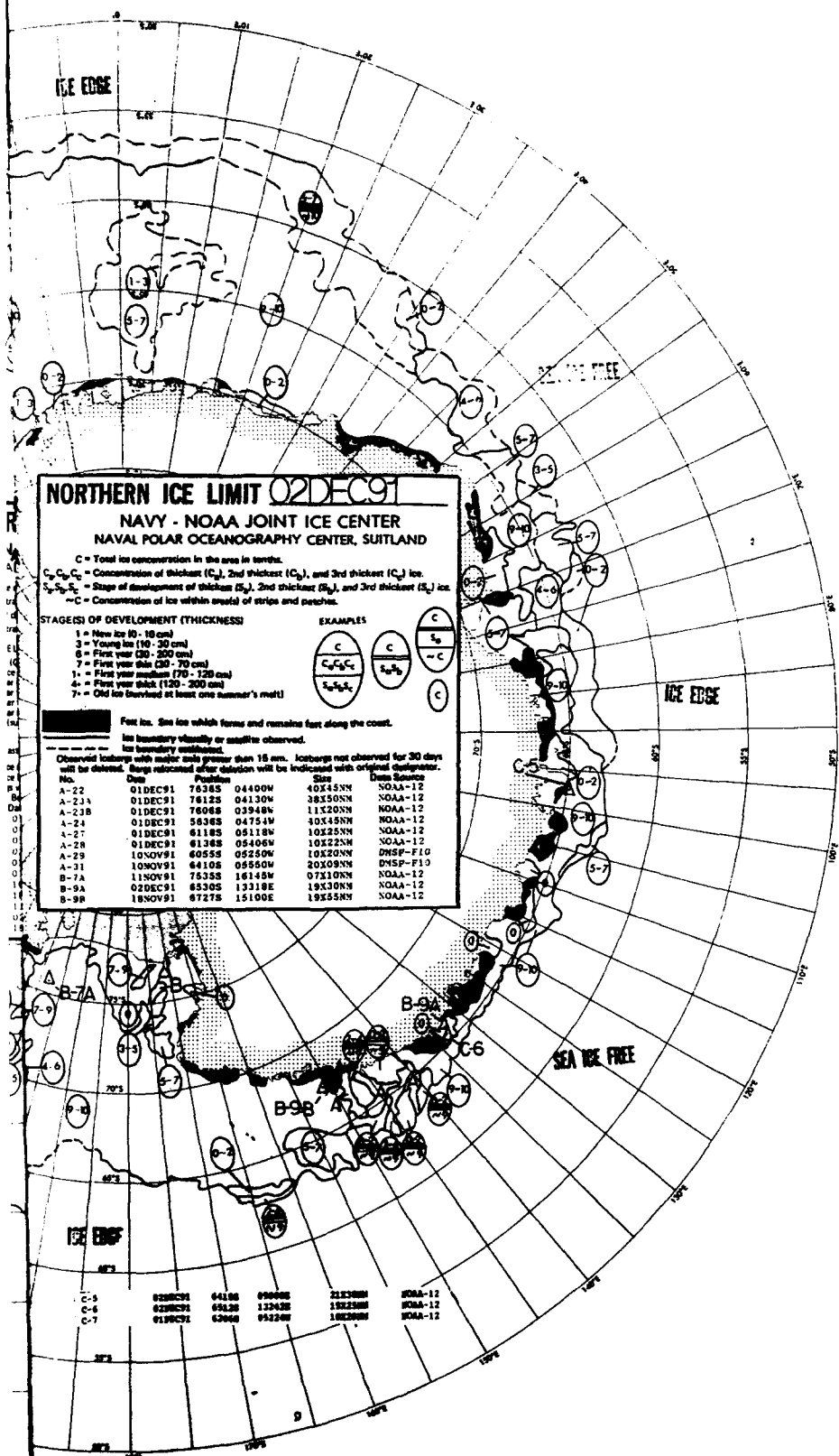


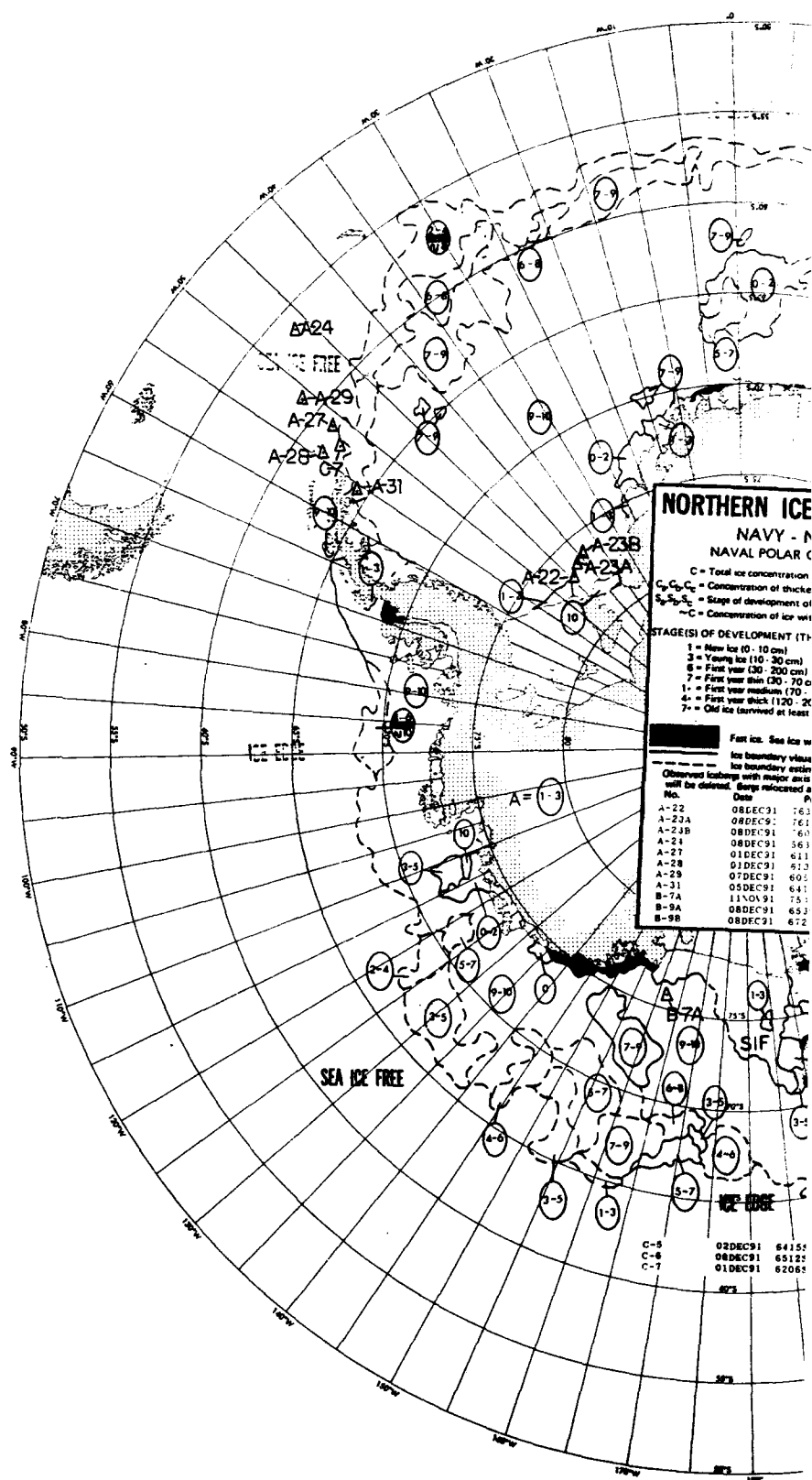
h7

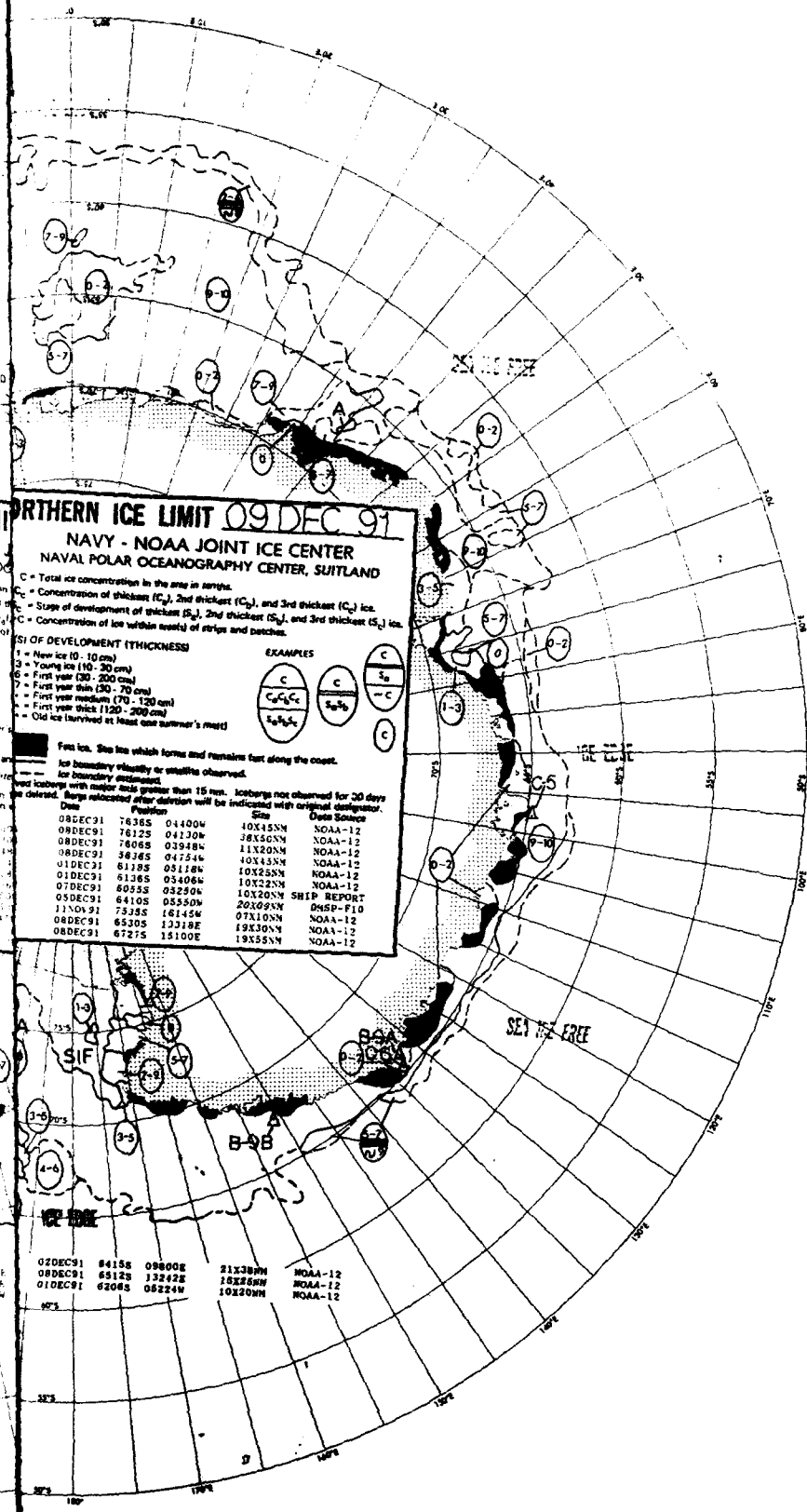


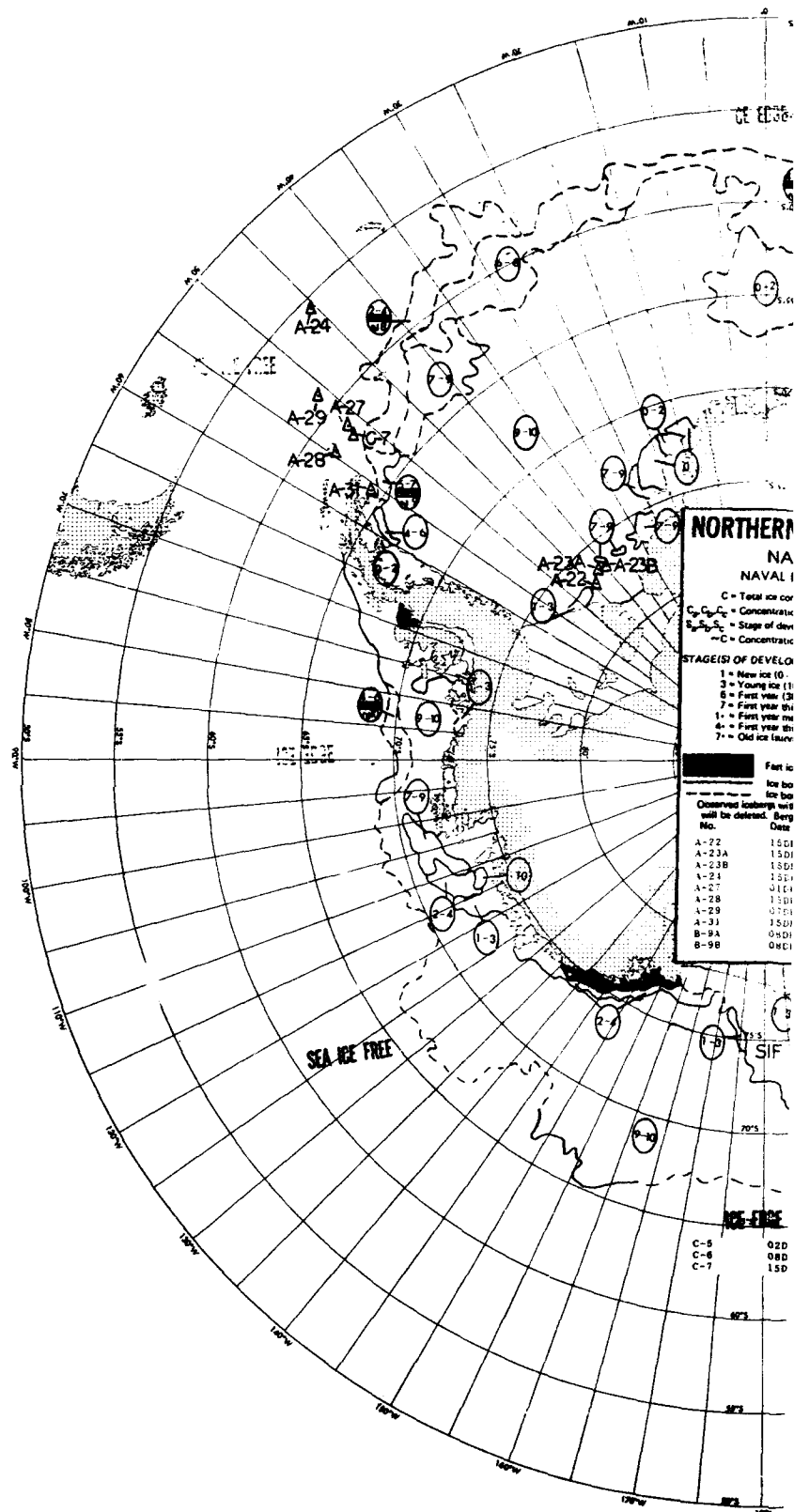


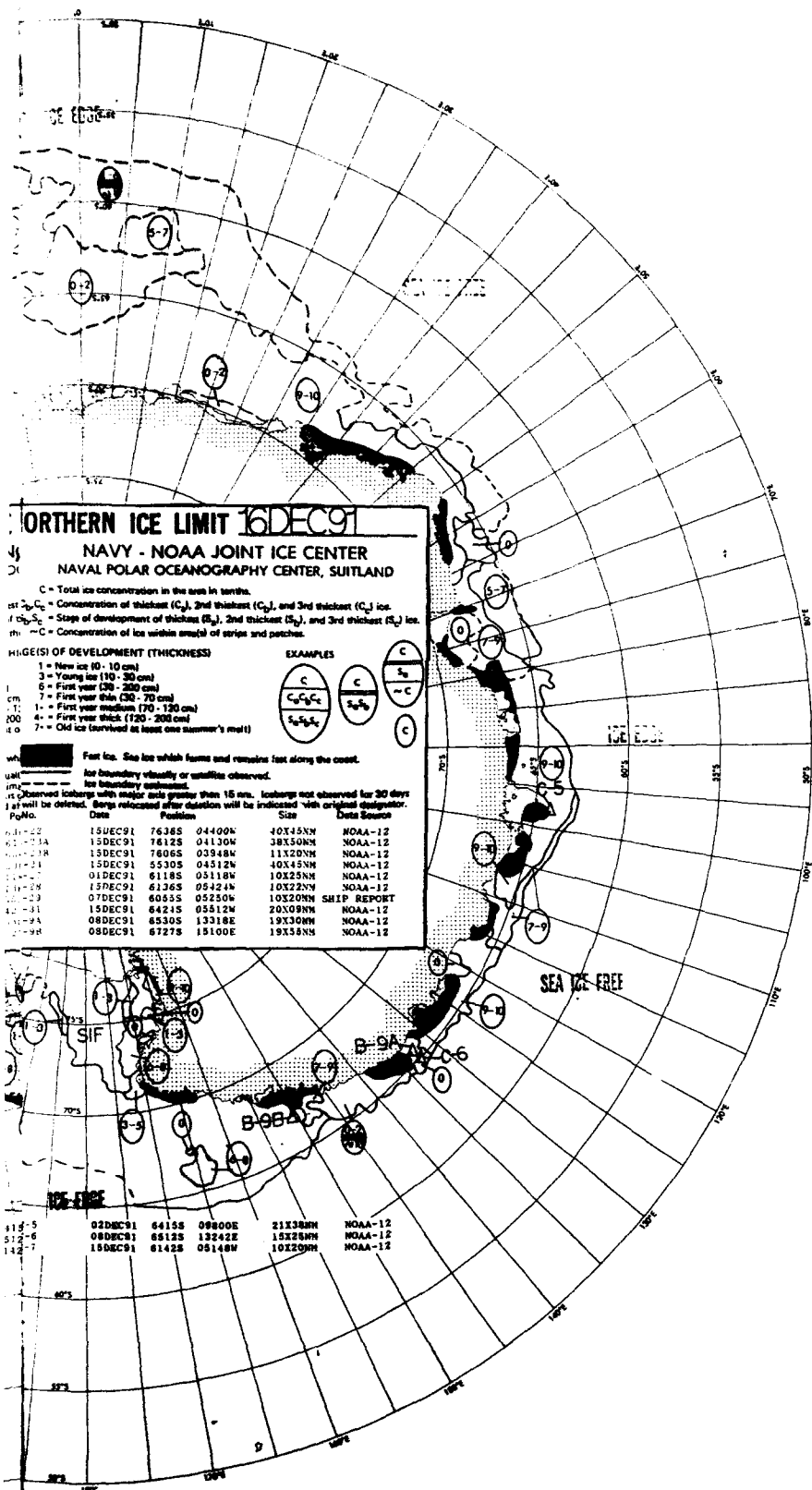












NORTHERN ICE LIMIT 23 DEC 91

NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

C = Total ice concentration in the area in tenths.
 $C_{1/2}$ = Concentration of thickest ($C_{1/2}$), 2nd thickest ($C_{2/2}$), and 3rd thickest ($C_{3/2}$) ice.
 $C_{1/2}$ = Stage of development of thickest ($C_{1/2}$), 2nd thickest ($C_{2/2}$), and 3rd thickest ($C_{3/2}$) ice.
 $C_{1/2}$ = Concentration of the white circle of center and position.

STAGES OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 2 = Young ice (10 - 20 cm)
- 3 = First year ice (20 - 30 cm)
- 4 = First year ice (30 - 40 cm)
- 5 = First year ice (40 - 50 cm)
- 6 = First year ice (50 - 60 cm)
- 7 = First year ice (60 - 70 cm)
- 8 = First year ice (70 - 80 cm)
- 9 = First year ice (80 - 90 cm)
- 10 = First year ice (90 - 100 cm)
- 11 = First year ice (100 - 120 cm)
- 12 = Old ice (120 - 150 cm)
- 13 = Old ice (150 - 180 cm)
- 14 = Old ice (180 - 200 cm)
- 15 = Old ice (200 - 250 cm)
- 16 = Old ice (250 - 300 cm)
- 17 = Old ice (300 - 350 cm)
- 18 = Old ice (350 - 400 cm)
- 19 = Old ice (400 - 450 cm)
- 20 = Old ice (450 - 500 cm)
- 21 = Old ice (500 - 550 cm)
- 22 = Old ice (550 - 600 cm)
- 23 = Old ice (600 - 650 cm)
- 24 = Old ice (650 - 700 cm)
- 25 = Old ice (700 - 750 cm)
- 26 = Old ice (750 - 800 cm)
- 27 = Old ice (800 - 850 cm)
- 28 = Old ice (850 - 900 cm)
- 29 = Old ice (900 - 950 cm)
- 30 = Old ice (950 - 1000 cm)

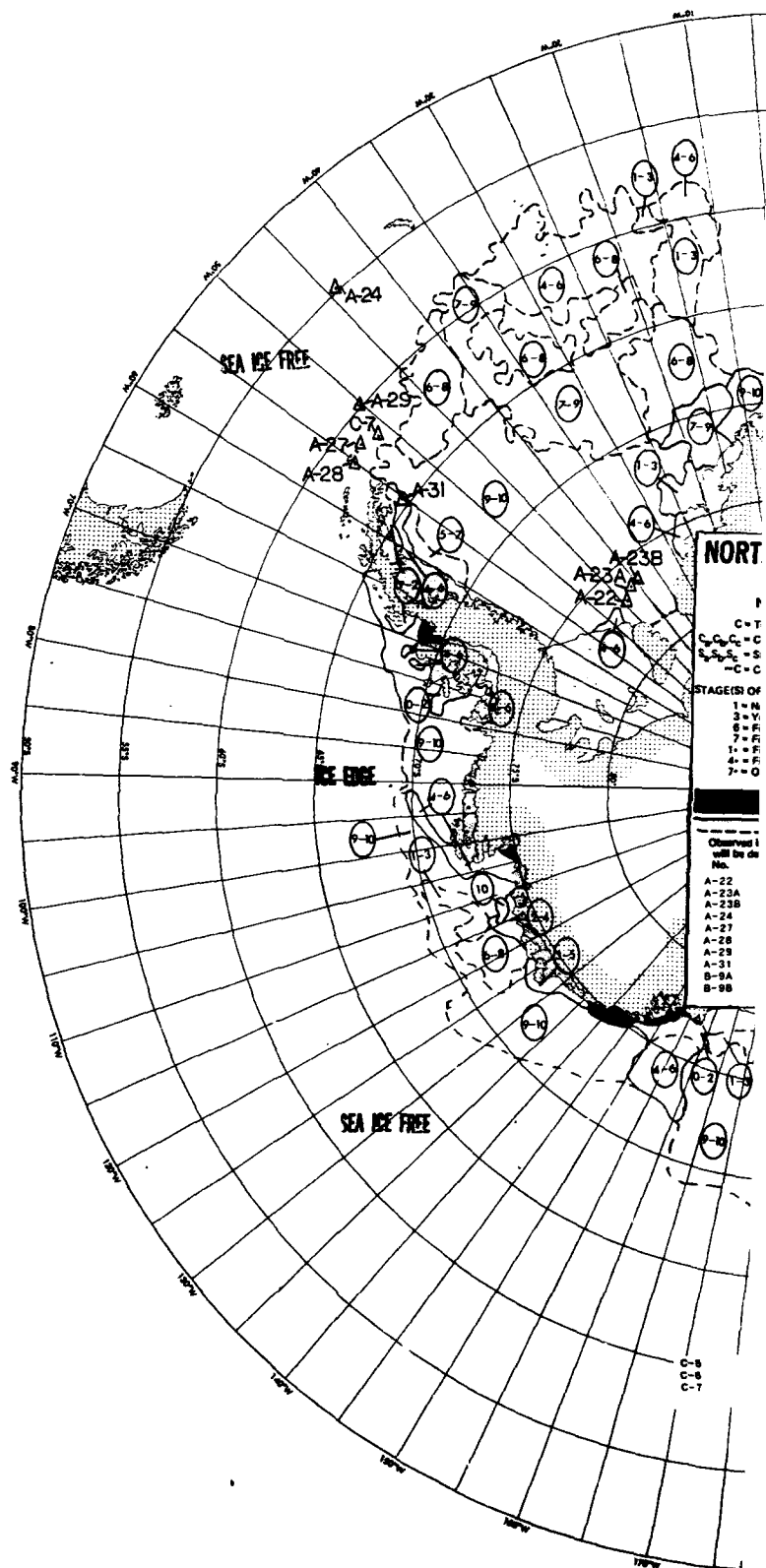
EXAMPLES

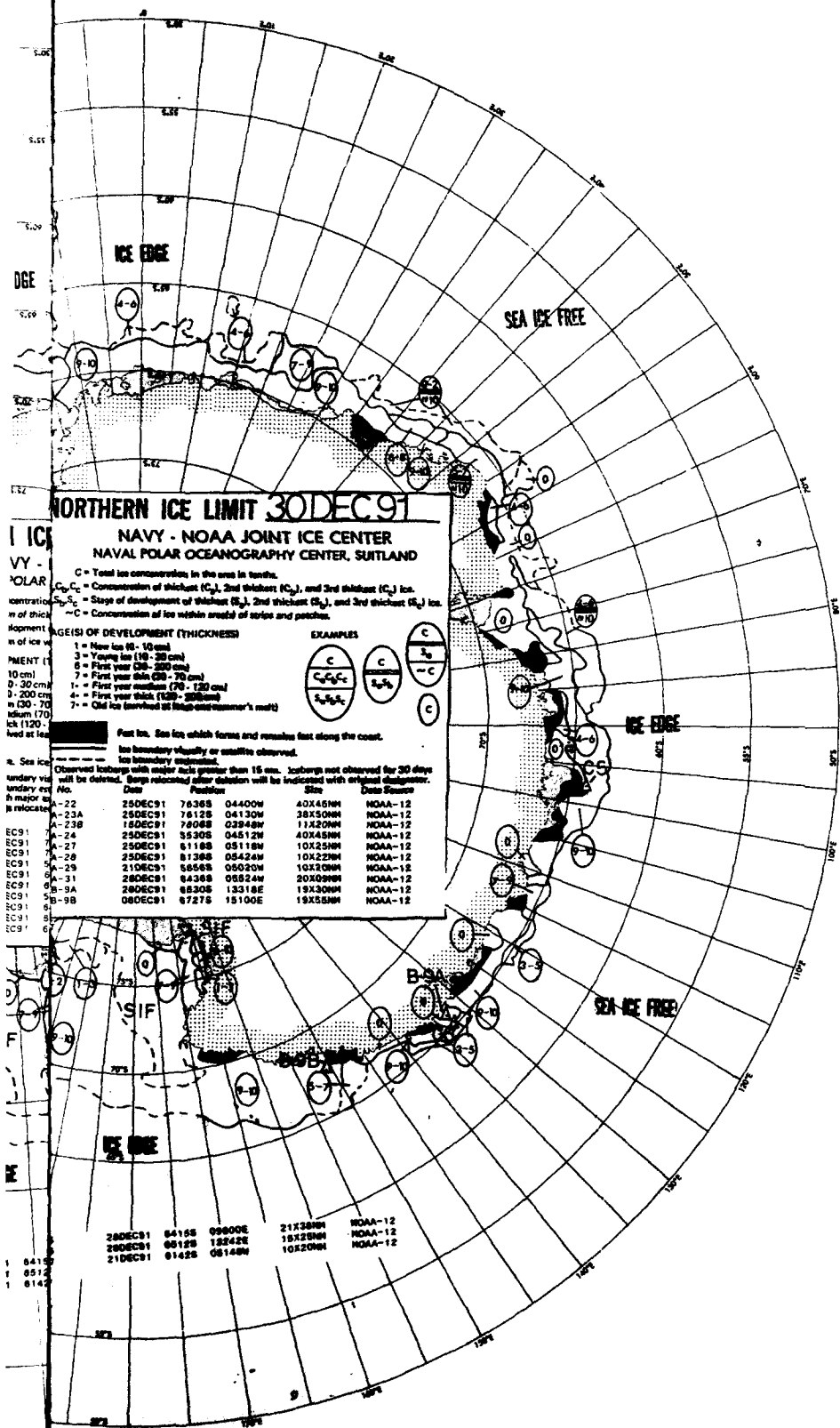


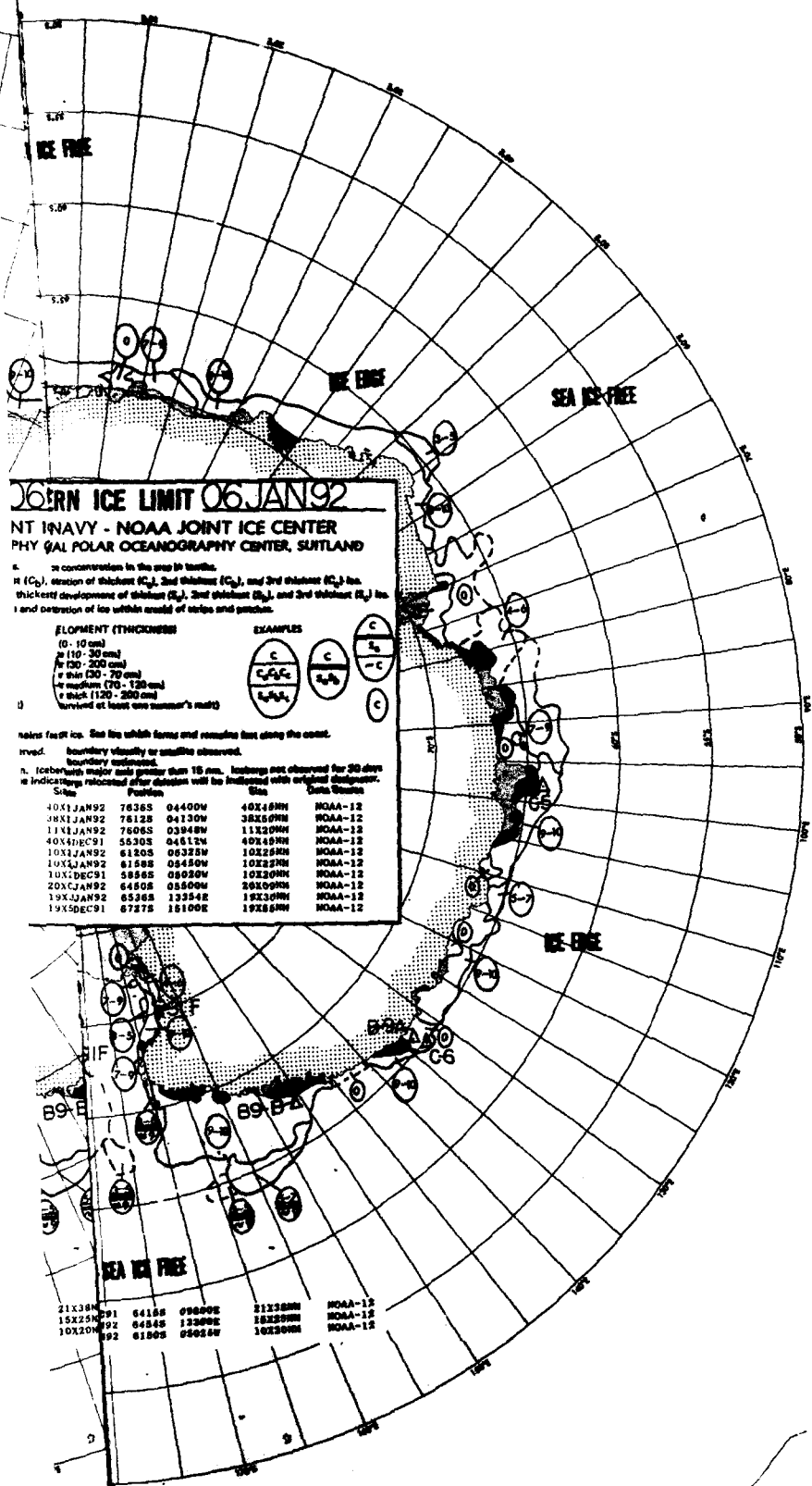
Part 1a. Sea ice which forms and remains fast along the coast.
 Part 1b. Sea ice which forms and remains fast along the coast.
 Part 1c. Sea ice which forms and remains fast along the coast.
 Part 1d. Sea ice which forms and remains fast along the coast.
 Part 1e. Sea ice which forms and remains fast along the coast.
 Part 1f. Sea ice which forms and remains fast along the coast.
 Part 1g. Sea ice which forms and remains fast along the coast.
 Part 1h. Sea ice which forms and remains fast along the coast.
 Part 1i. Sea ice which forms and remains fast along the coast.
 Part 1j. Sea ice which forms and remains fast along the coast.
 Part 1k. Sea ice which forms and remains fast along the coast.
 Part 1l. Sea ice which forms and remains fast along the coast.
 Part 1m. Sea ice which forms and remains fast along the coast.
 Part 1n. Sea ice which forms and remains fast along the coast.
 Part 1o. Sea ice which forms and remains fast along the coast.
 Part 1p. Sea ice which forms and remains fast along the coast.
 Part 1q. Sea ice which forms and remains fast along the coast.
 Part 1r. Sea ice which forms and remains fast along the coast.
 Part 1s. Sea ice which forms and remains fast along the coast.
 Part 1t. Sea ice which forms and remains fast along the coast.
 Part 1u. Sea ice which forms and remains fast along the coast.
 Part 1v. Sea ice which forms and remains fast along the coast.
 Part 1w. Sea ice which forms and remains fast along the coast.
 Part 1x. Sea ice which forms and remains fast along the coast.
 Part 1y. Sea ice which forms and remains fast along the coast.
 Part 1z. Sea ice which forms and remains fast along the coast.

Station	Position	Time	Remarks
15DEC91	78300 04400N	40X40M	NOAA-12
15DEC91	78120 04130W	30X30M	NOAA-12
15DEC91	78060 03940W	11X20M	NOAA-12
15DEC91	04520S 04512W	40X40M	NOAA-12
01DEC91	01180 05120W	10X20M	NOAA-12
15DEC91	01260 05420W	10X20M	NOAA-12
07DEC91	05560 06020W	10X20M	SHIP REPORT
15DEC91	04240 05512W	20X20M	NOAA-12
06DEC91	05200 13310E	10X20M	NOAA-12
06DEC91	07275 13100E	10X20M	NOAA-12
07DEC91	04150 09000E	21X20M	NOAA-12

05DEC91	05120	18040E	10X20M	NOAA-12
15DEC91	01420	06140W	10X20M	NOAA-12







ICE LIMIT 06 JAN 92 **NT INAVY - NOAA JOINT ICE CENTER** **PHY CAL POLAR OCEANOGRAPHY CENTER, SUTLAND**

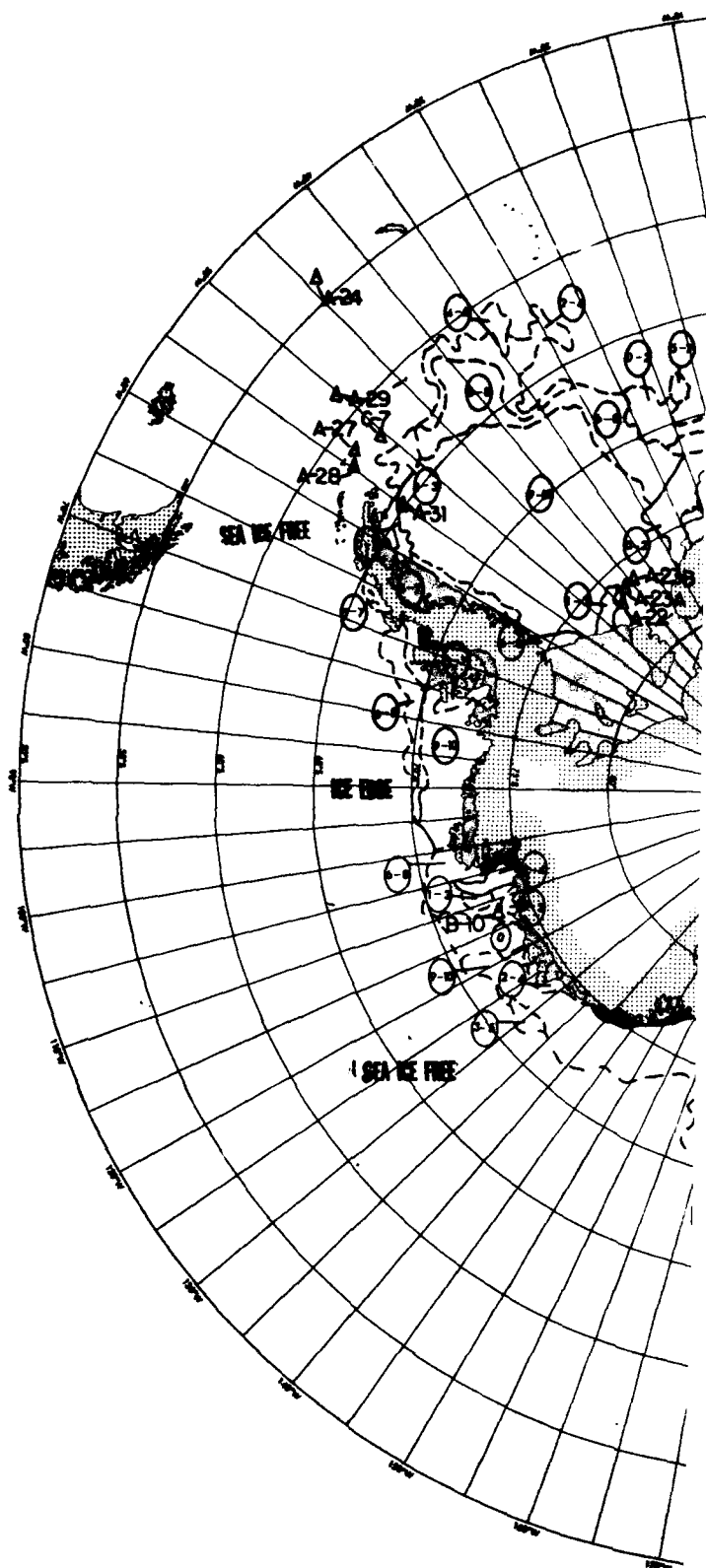
a. concentration in the map in tenths.
 H (C₀) station of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
 thickest development of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
 and direction of ice within circle of circle and patch.

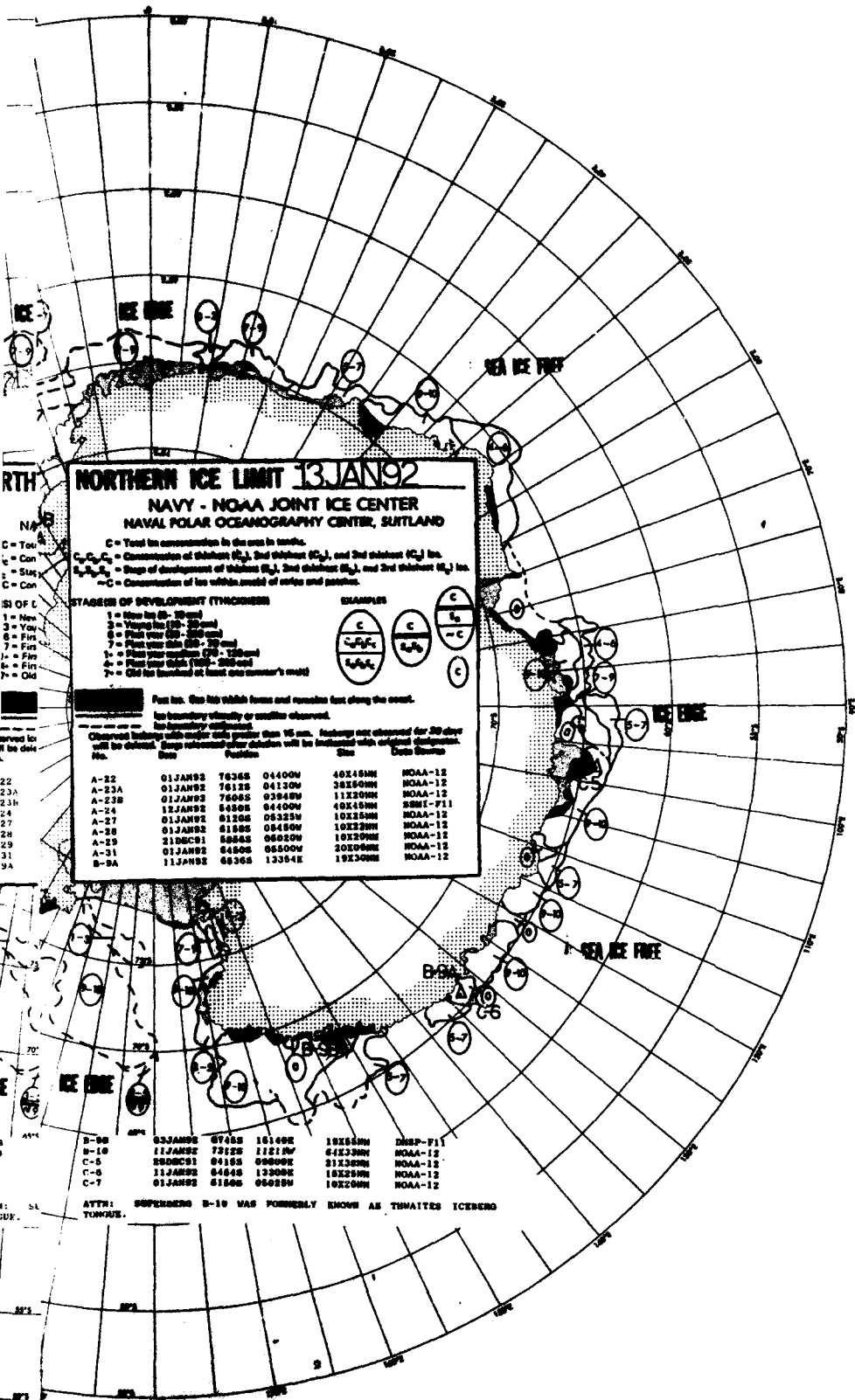
EXAMPLES	EXAMPLES
(C ₁ C ₂ C ₃)	(C ₁ C ₂ C ₃)
(C ₁ C ₂ C ₃)	(C ₁ C ₂ C ₃)
(C ₁ C ₂ C ₃)	(C ₁ C ₂ C ₃)
(C ₁ C ₂ C ₃)	(C ₁ C ₂ C ₃)
(C ₁ C ₂ C ₃)	(C ₁ C ₂ C ₃)

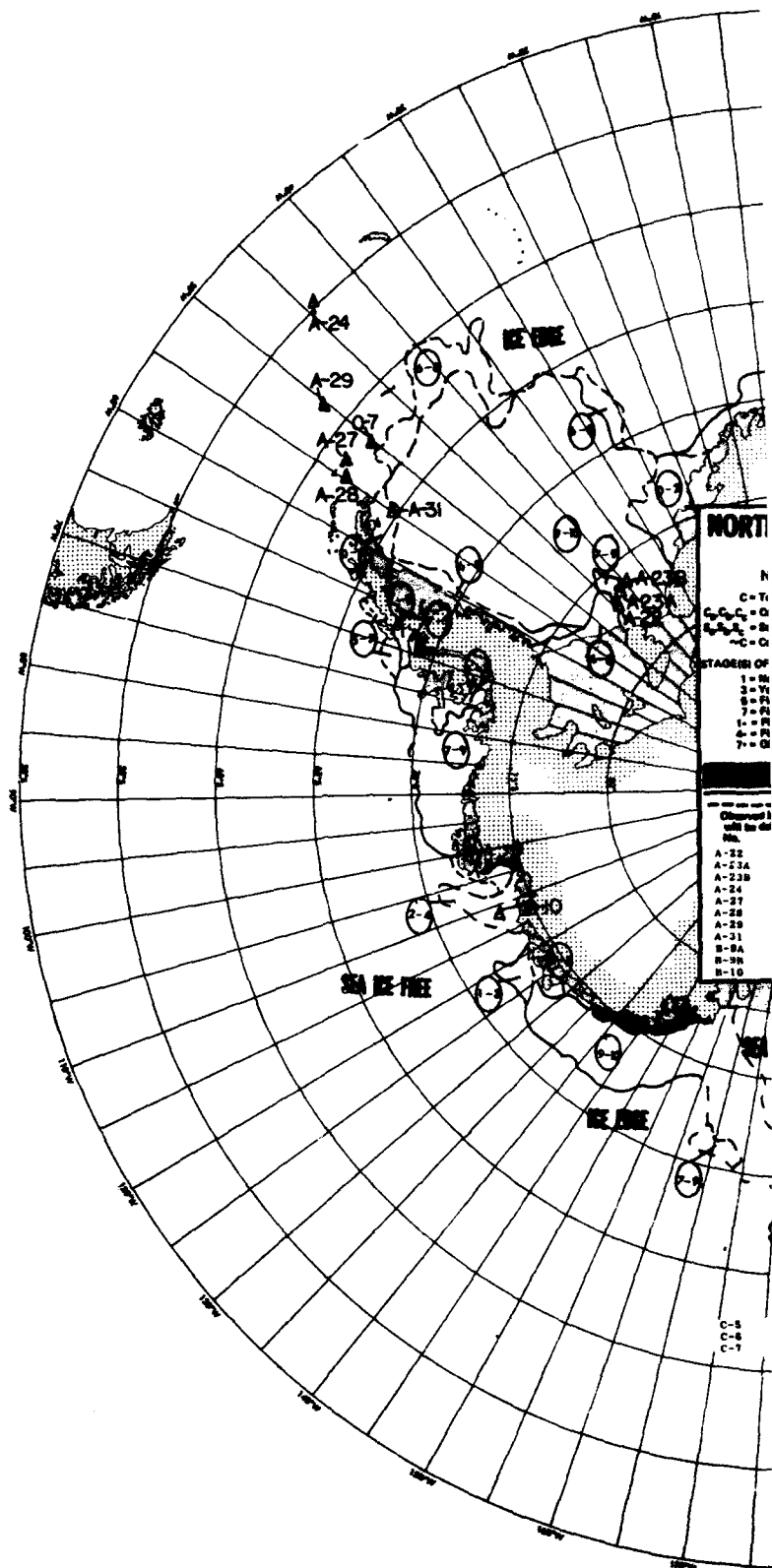
notes: (a) ice. See the white line and remains last along the coast.
 (b) boundary usually to satellite observed.
 (c) boundary estimated.
 (d) icebergs major scale greater than 10 m. Icebergs not observed for 20 days
 as indicated by reference after date will be indicated with original designation.

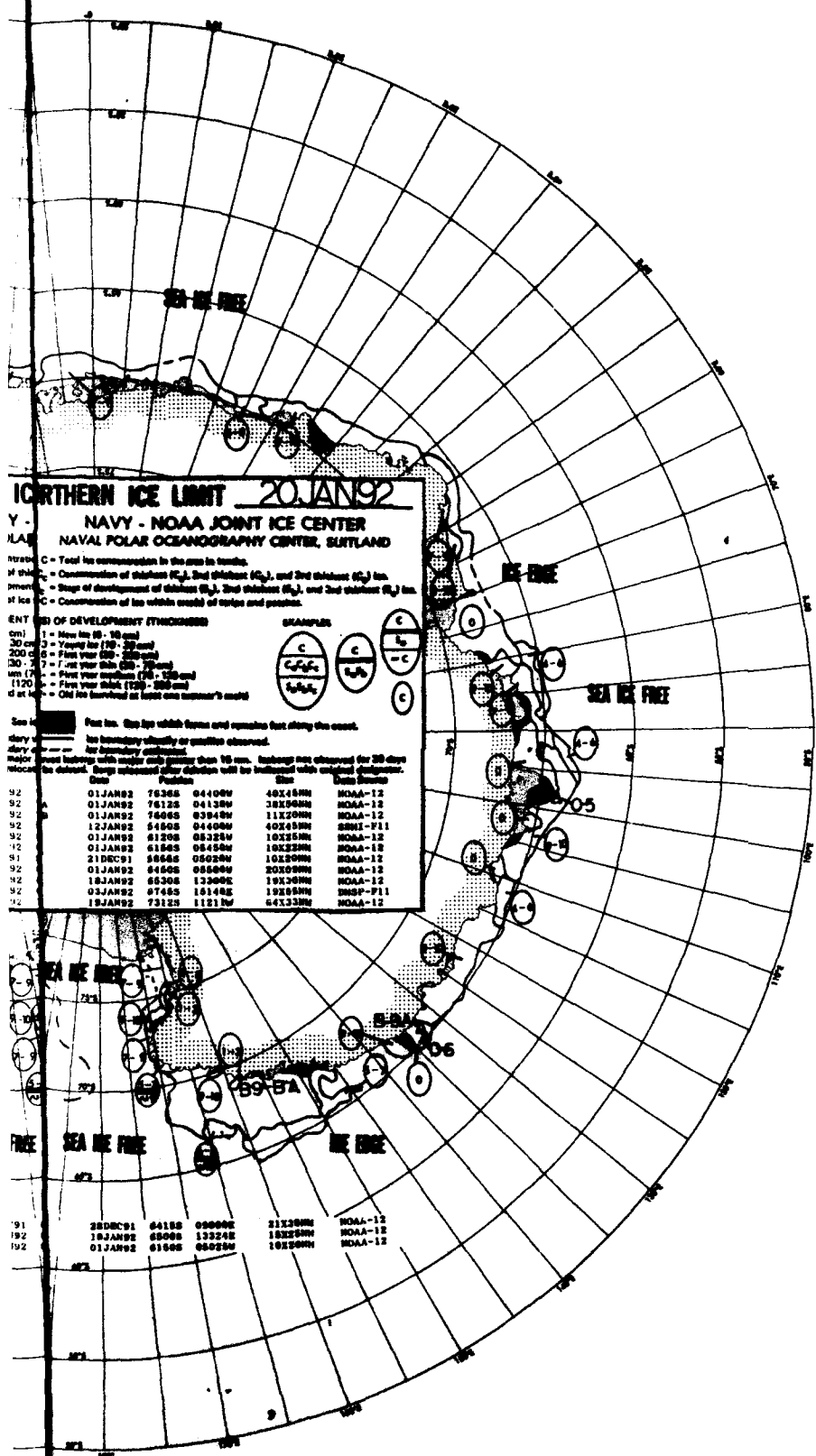
Date	Position	Date	Position
10X1JAN92	7836S 04400W	10X1JAN92	NOAA-12
10X1JAN92	7812S 04130W	10X1JAN92	NOAA-12
11X1JAN92	7808S 03940W	11X1JAN92	NOAA-12
10X1DEC91	6530S 04112W	10X1DEC91	NOAA-12
10X1JAN92	6120S 06325W	10X1JAN92	NOAA-12
10X1JAN92	6158S 05450W	10X1JAN92	NOAA-12
10X1DEC91	5858S 05080W	10X1DEC91	NOAA-12
20X1JAN92	6450S 03500W	20X1JAN92	NOAA-12
19X1JAN92	6536S 12354E	19X1JAN92	NOAA-12
19X1DEC91	6737S 18100E	19X1DEC91	NOAA-12

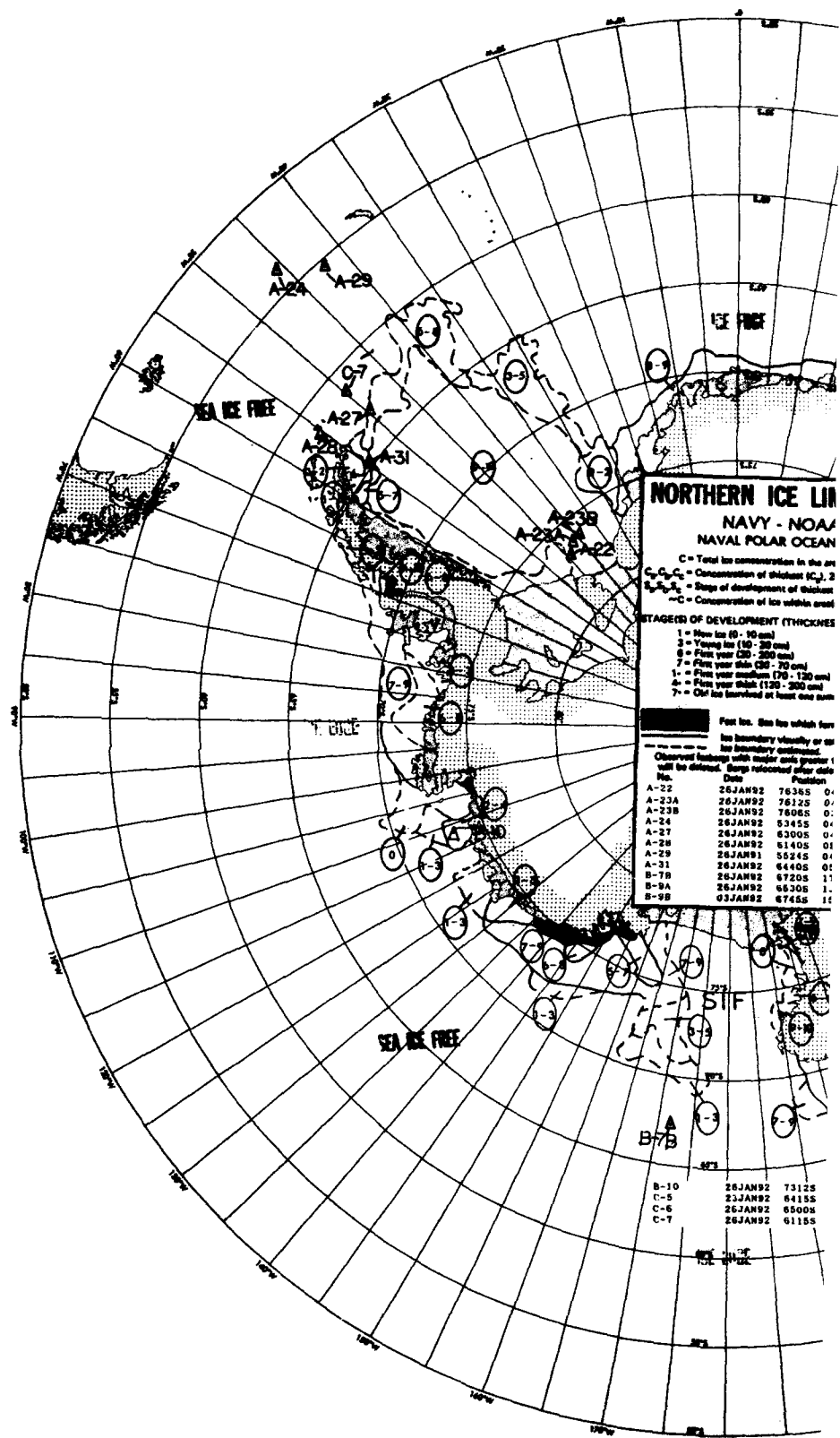
21X3M	6415S 05000E	21X3M	NOAA-12
15X25M	6454S 12300E	15X25M	NOAA-12
10X20M	6180S 06024W	10X20M	NOAA-12

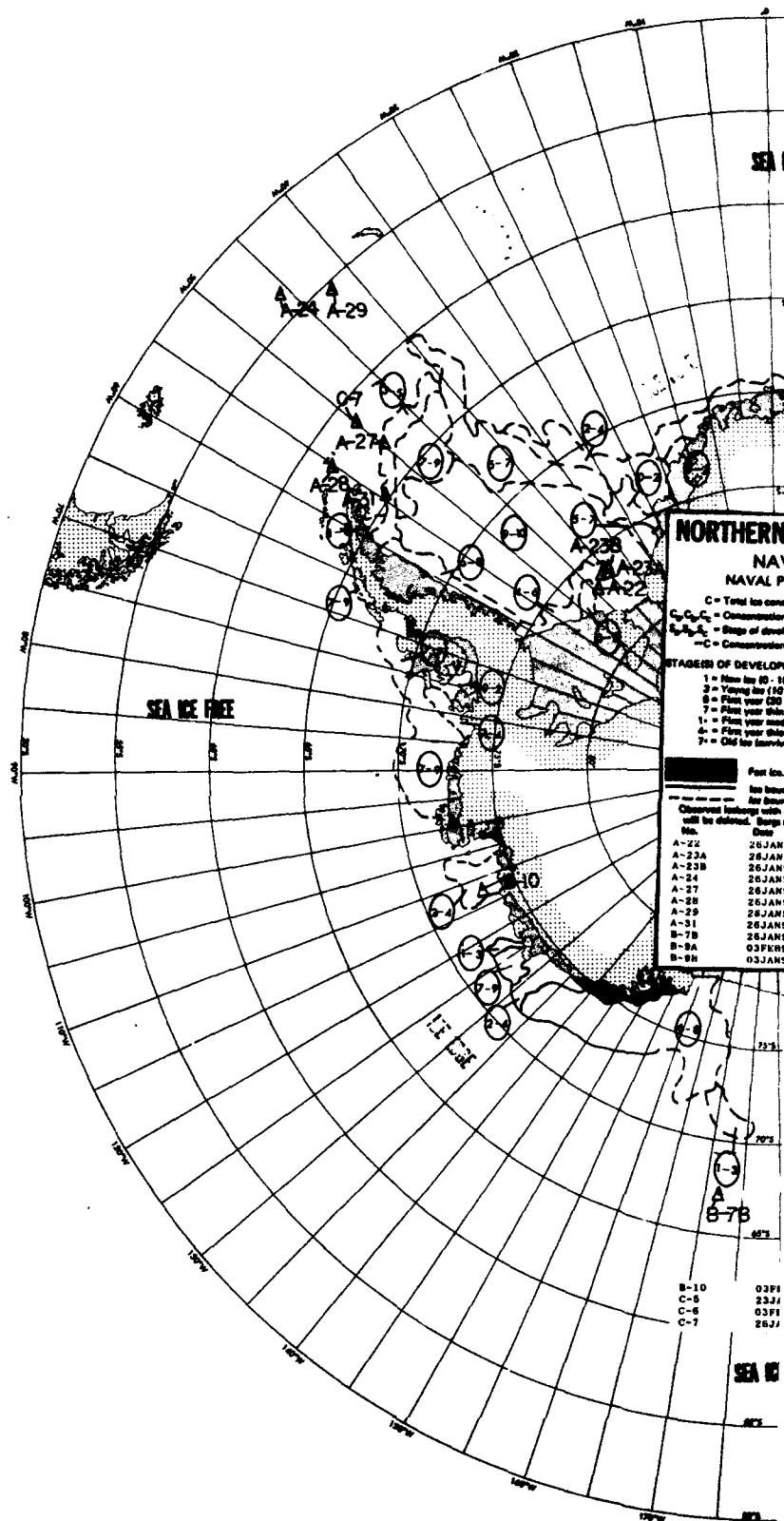












SEA ICE FREE

SEA ICE FREE

NORTHERN ICE LIMIT 03 FEB 92

NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

C = Total ice concentration in the area to be used.
 C_1, C_2, C_3 = Concentration of thickest (C_1), 2nd thickest (C_2), and 3rd thickest (C_3) ice.
 C_1, C_2, C_3 = Stage of development of thickest (C_1), 2nd thickest (C_2), and 3rd thickest (C_3) ice.
 In area = Concentration of ice within circle of radius and position.

EXAMPLES OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
 2 = Young ice (10 - 30 cm)
 3 = First year (30 - 50 cm)
 4 = First year (50 - 70 cm)
 5 = First year (70 - 90 cm)
 6 = First year (90 - 120 cm)
 7 = First year (120 - 200 cm)
 8 = First year (200 - 300 cm)
 9 = Old ice (300 cm or more)

EXAMPLES



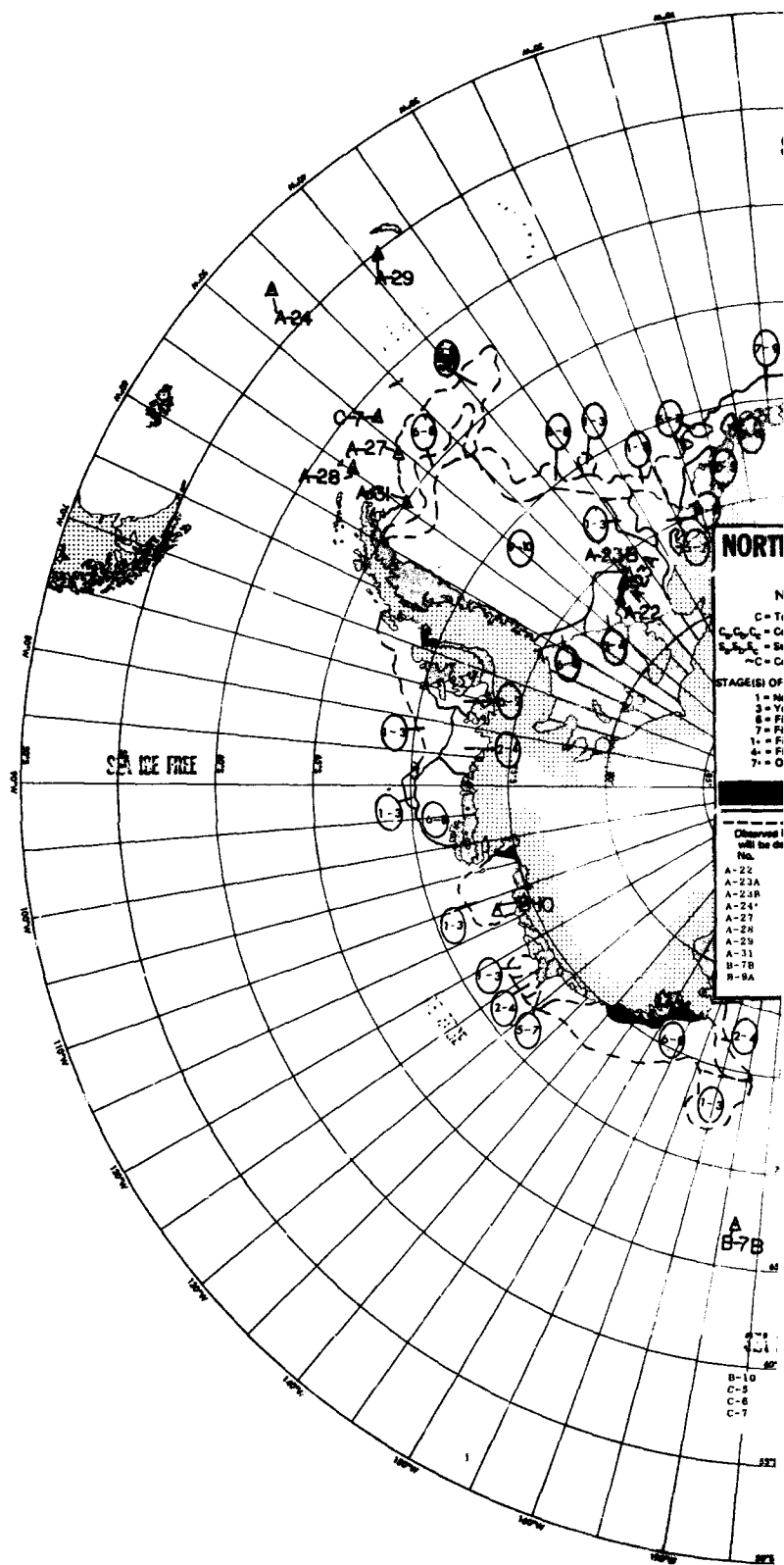
High for [] Feet ice. See ice which forms and remains fast along the coast.

Ice boundary vicinity of satellite observed.
 Ice boundary estimated.
 Greater observed ice than 15 cm. Iceberg not observed for 20 days.
 All be deleted. Barge released after duration will be indicated with original designation.

Date	Position	Size	Data Source
26 JAN 92	7536S 04400W	40X15NM	NOAA-12
26 JAN 92	7512S 04130W	38X20NM	NOAA-12
26 JAN 92	7508S 03948W	11X20NM	NOAA-12
26 JAN 92	5345S 04550W	40X15NM	NOAA-12
26 JAN 92	0300S 04949W	10X25NM	NOAA-12
26 JAN 92	6140S 05510W	10X22NM	SHIP REPORT
26 JAN 92	5524S 04212W	10X20NM	NOAA-12
26 JAN 92	6440S 05445W	20X20NM	NOAA-12
26 JAN 92	0720S 17150W	05X10NM	NOAA-12
03 FEB 92	0548S 13300E	18X20NM	NOAA-12
03 JAN 92	8745S 18140E	19X55NM	INSP-911

112S	10	03 FEB 92	7312S	11211W	04X33NM	NOAA-12
115S	5	23 JAN 92	0416S	09000E	21X35NM	NOAA-12
118S	6	03 FEB 92	0449S	13300E	15X25NM	NOAA-12
119S	7	26 JAN 92	0115S	04950E	10X20NM	NOAA-12

SEA ICE FREE



SEA ICE FREE

NORTHERN ICE LIMIT 10 FEB 92

NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
S₁, S₂, S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
~C = Concentration of ice within mental of strips and patches.

STAGE(S) OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 2 = Young ice (10 - 30 cm)
- 3 = First year (30 - 200 cm)
- 4 = First year thin (30 - 70 cm)
- 5 = First year medium (70 - 120 cm)
- 6 = First year thick (120 - 200 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES



For ice: See ice which forms and remains fast along the coast.

Ice boundary visibility or satellite observed.

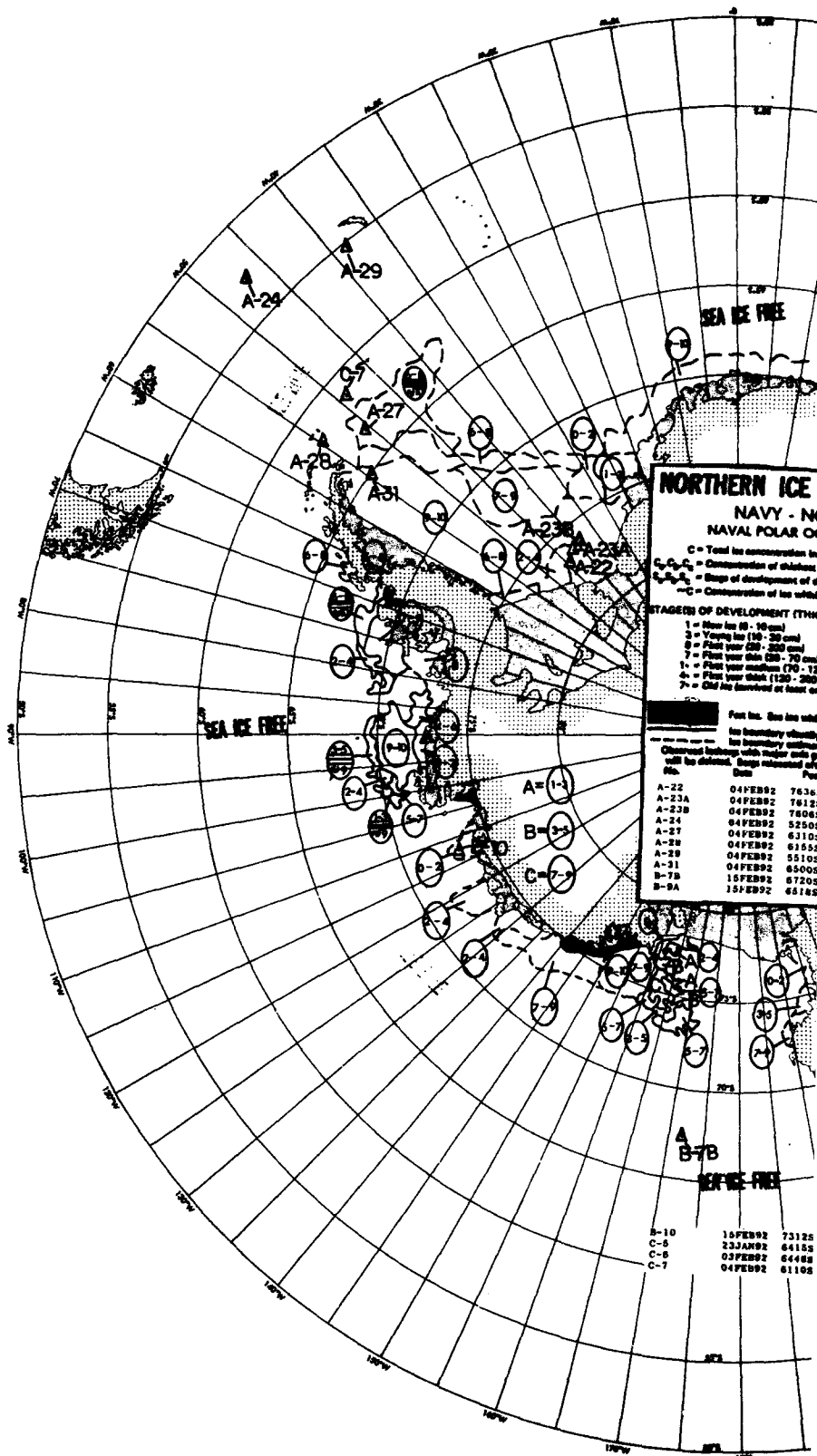
Ice boundary estimated.

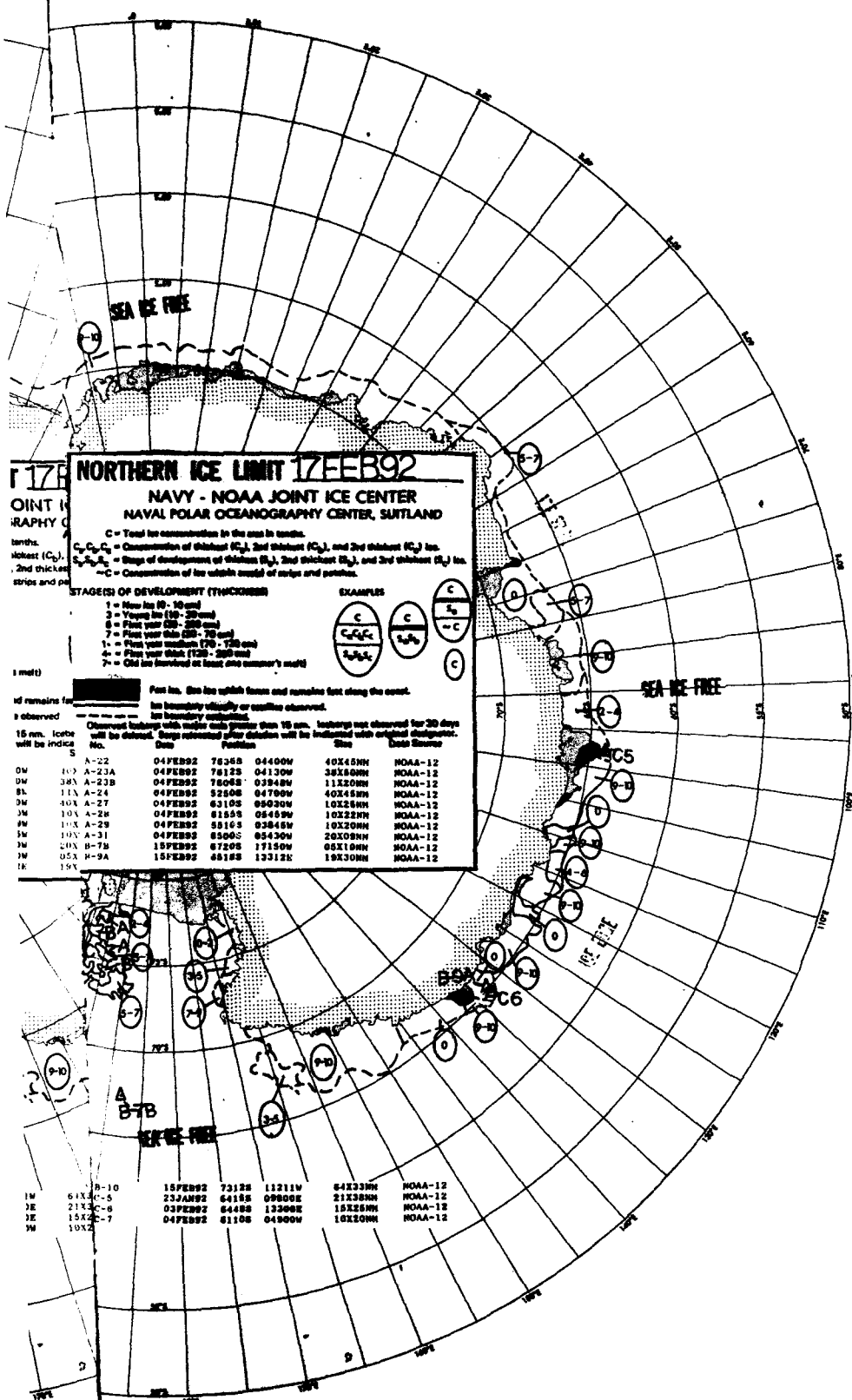
Observed icebergs with major axis greater than 15 km. Icebergs not observed for 30 days will be deleted. Berg released after deletion will be indicated with original designation.

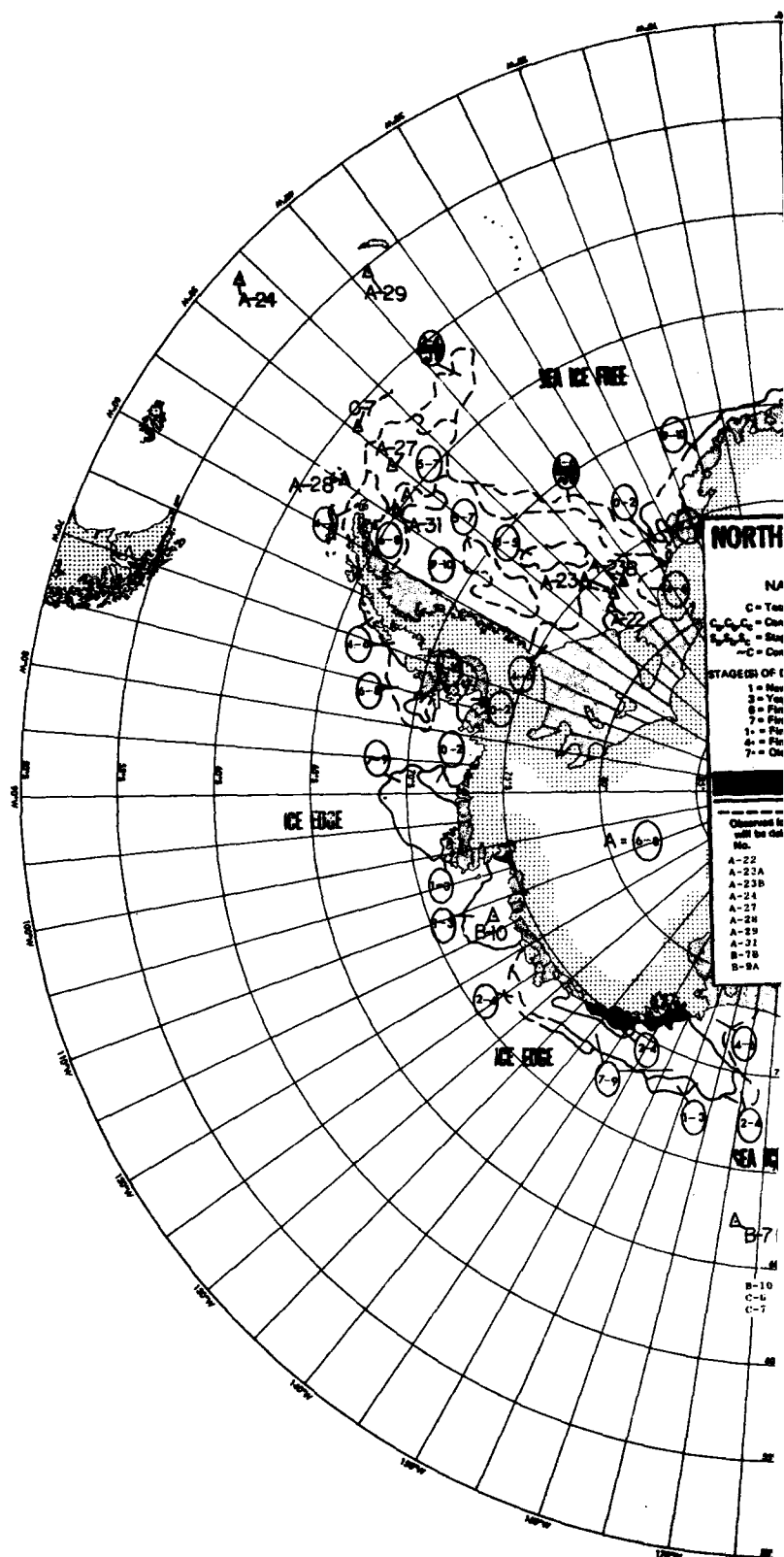
No.	Date	Position	Size	Date Source
A-22	01FEB92	763GS 04400W	40X45NM	NOAA-12
A-23A	04FEB92	7612S 04130W	38X50NM	NOAA-12
A-23B	04FEB92	7606S 03948W	11X20NM	NOAA-12
A-24	04FEB92	5250S 04700W	40X45NM	NOAA-12
A-27	04FEB92	6310S 05030W	10X25NM	NOAA-12
A-28	04FEB92	6155S 05459W	10X22NM	NOAA-12
A-29	04FEB92	5510S 03845W	10X20NM	NOAA-12
A-31	04FEB92	6500S 05430W	20X09NM	NOAA-12
B-7B	26JAN92	6720S 17150W	08X10NM	NOAA-12
B-9A	08FEB92	6518S 13312E	19X30NM	NOAA-12

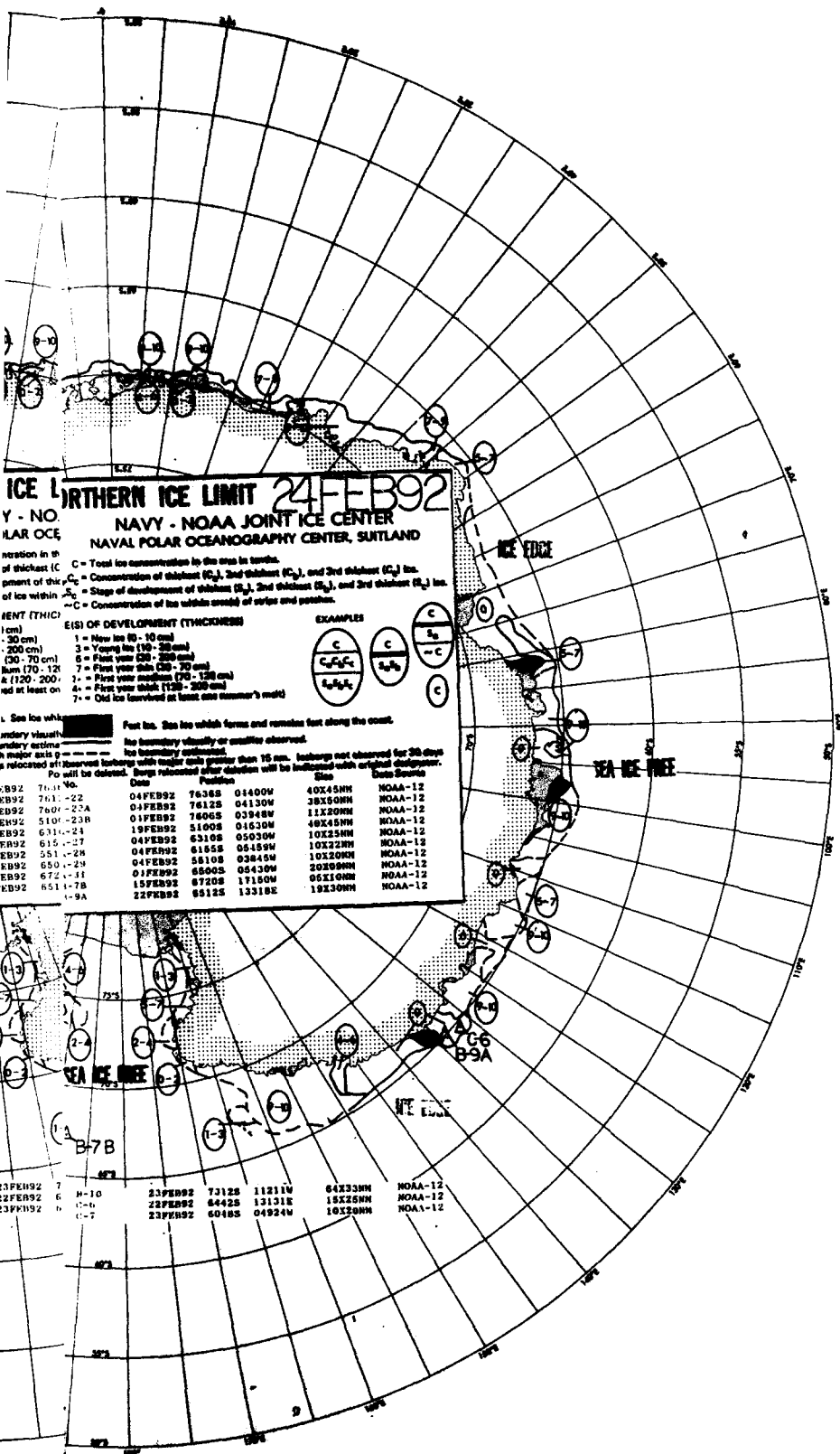
SEA ICE FREE

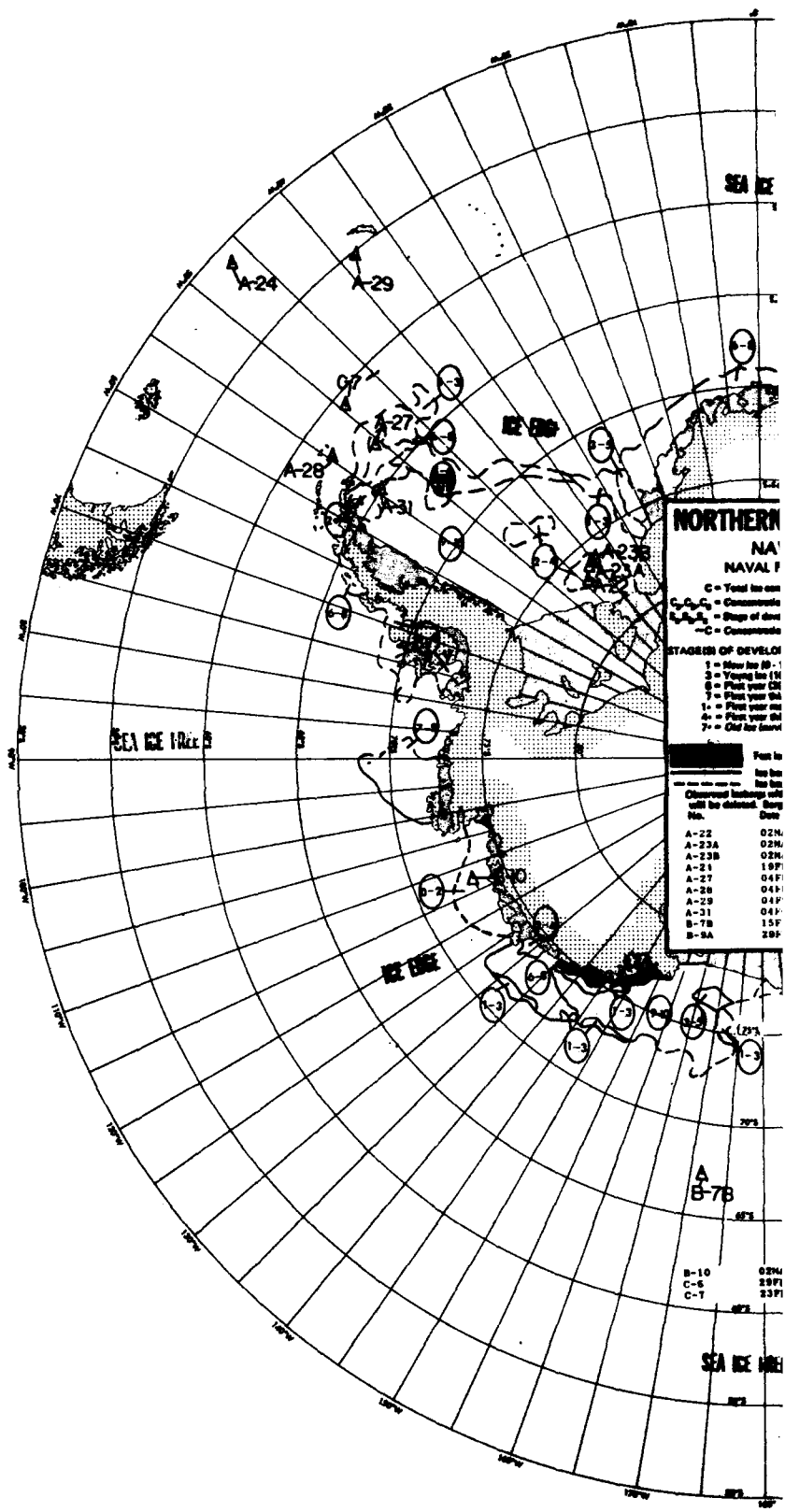
B-10	10FEB92	7312S 11211W	84X33NM	NOAA-12
C-5	23JAN92	6415S 09800E	21X28NM	NOAA-12
C-6	03FEB92	6448S 13300E	18X25NM	NOAA-12
C-7	04FEB92	6110S 04900W	10X20NM	NOAA-12

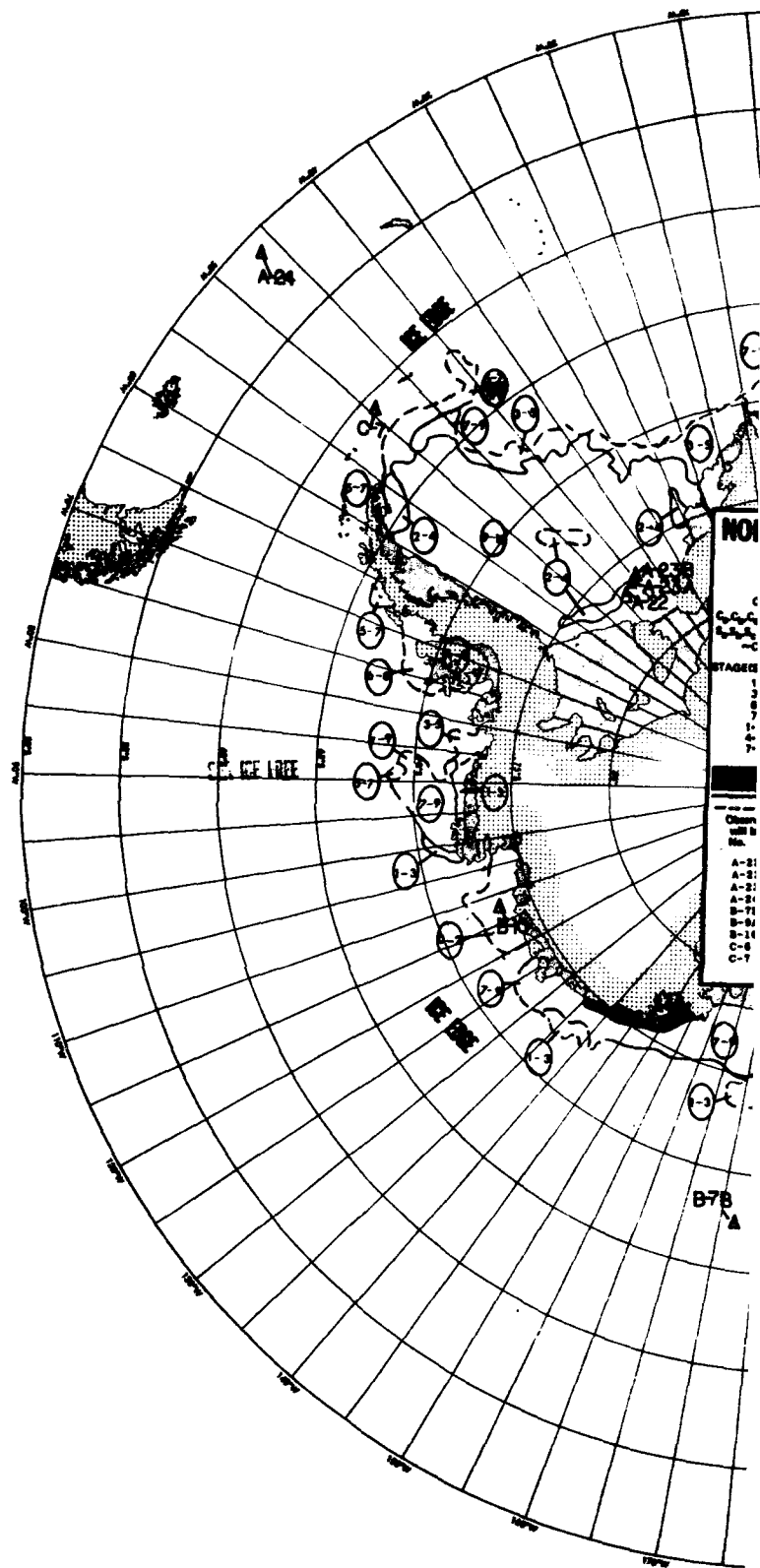


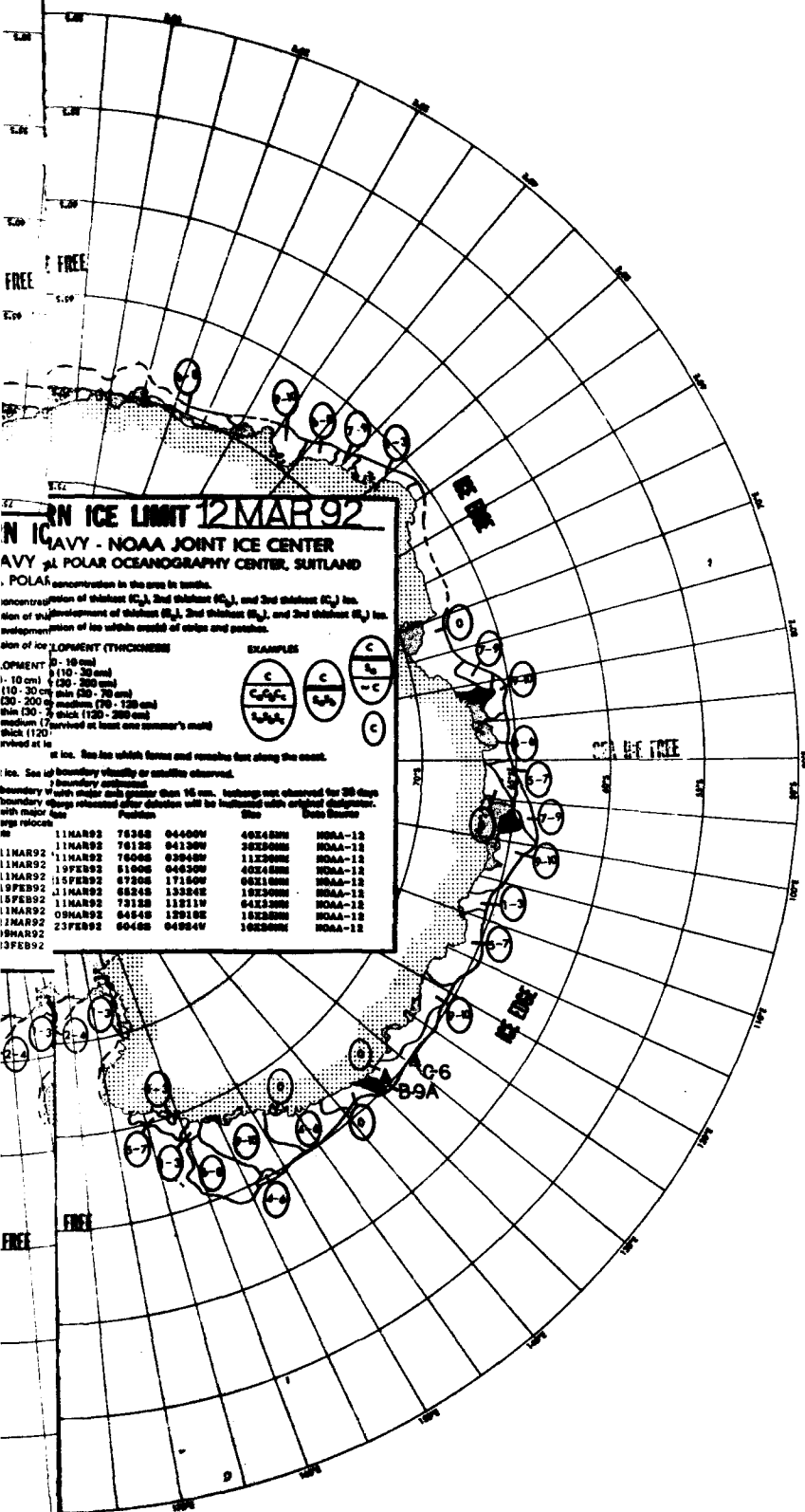


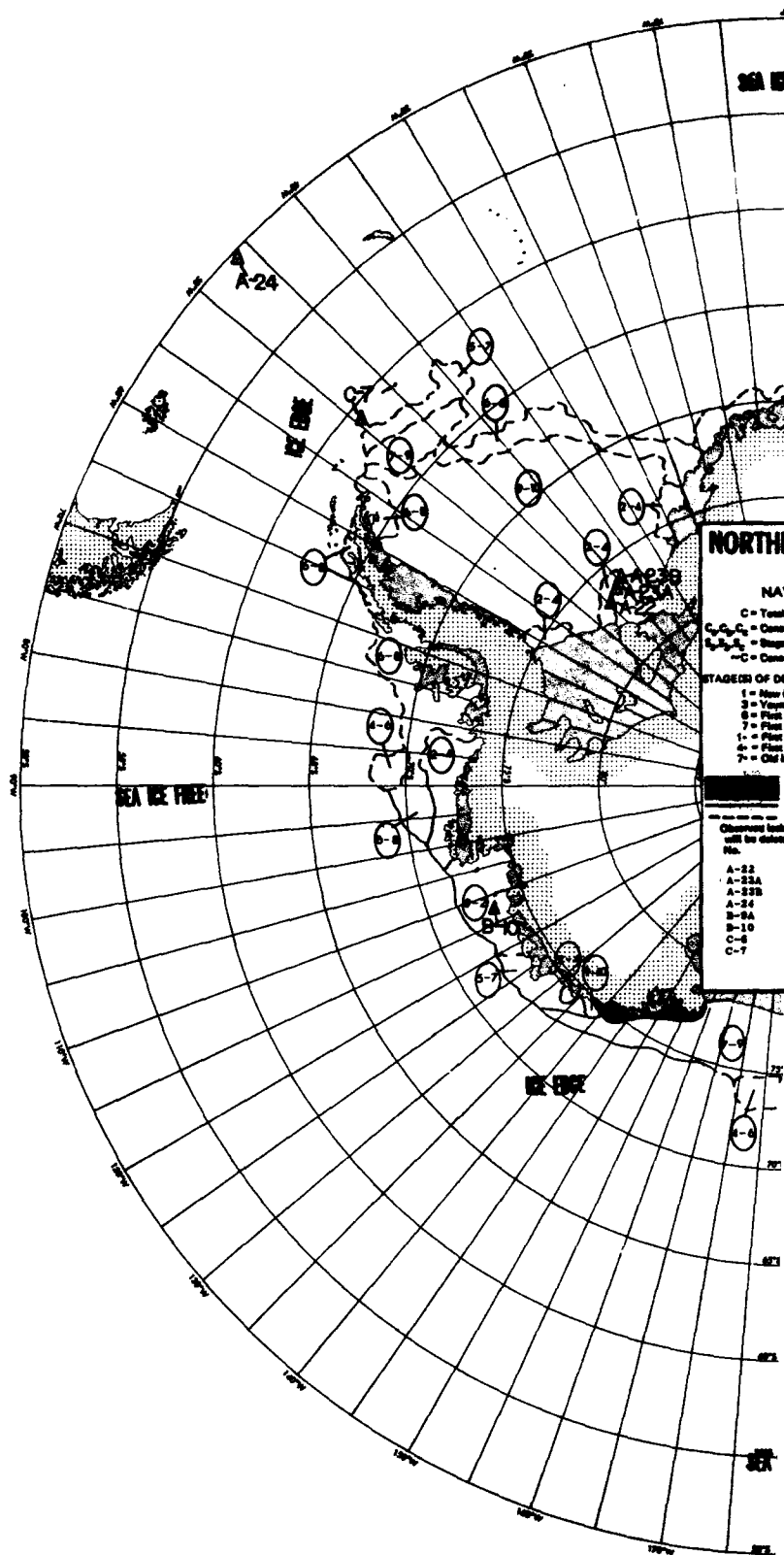


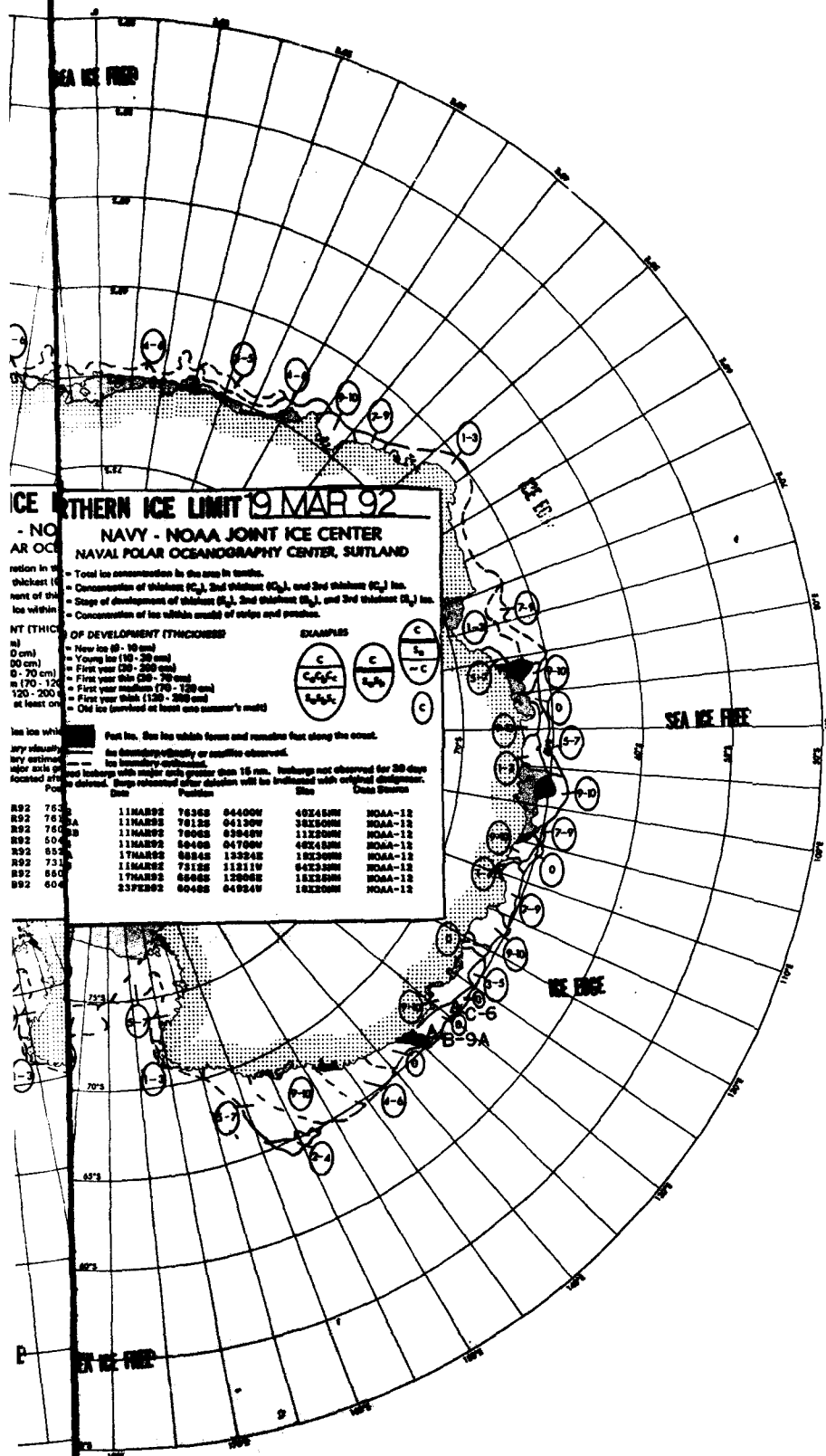


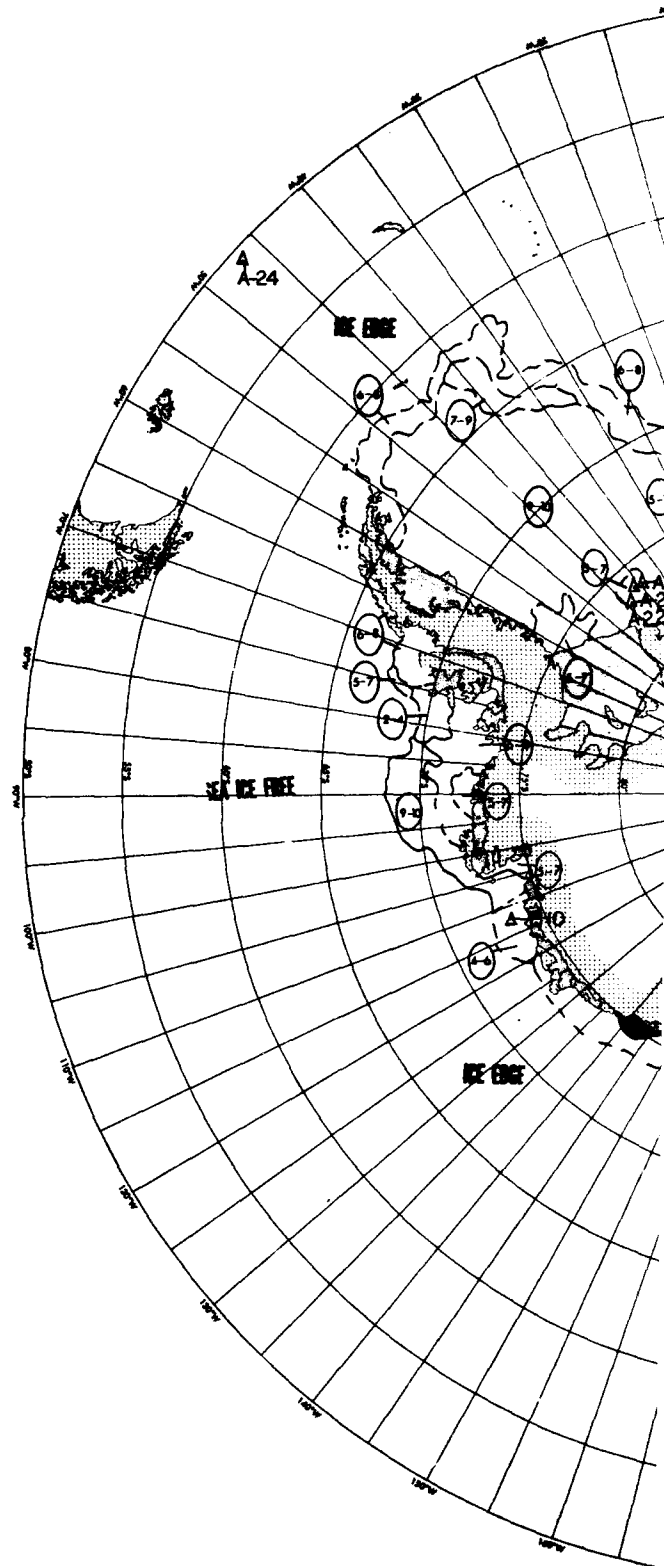


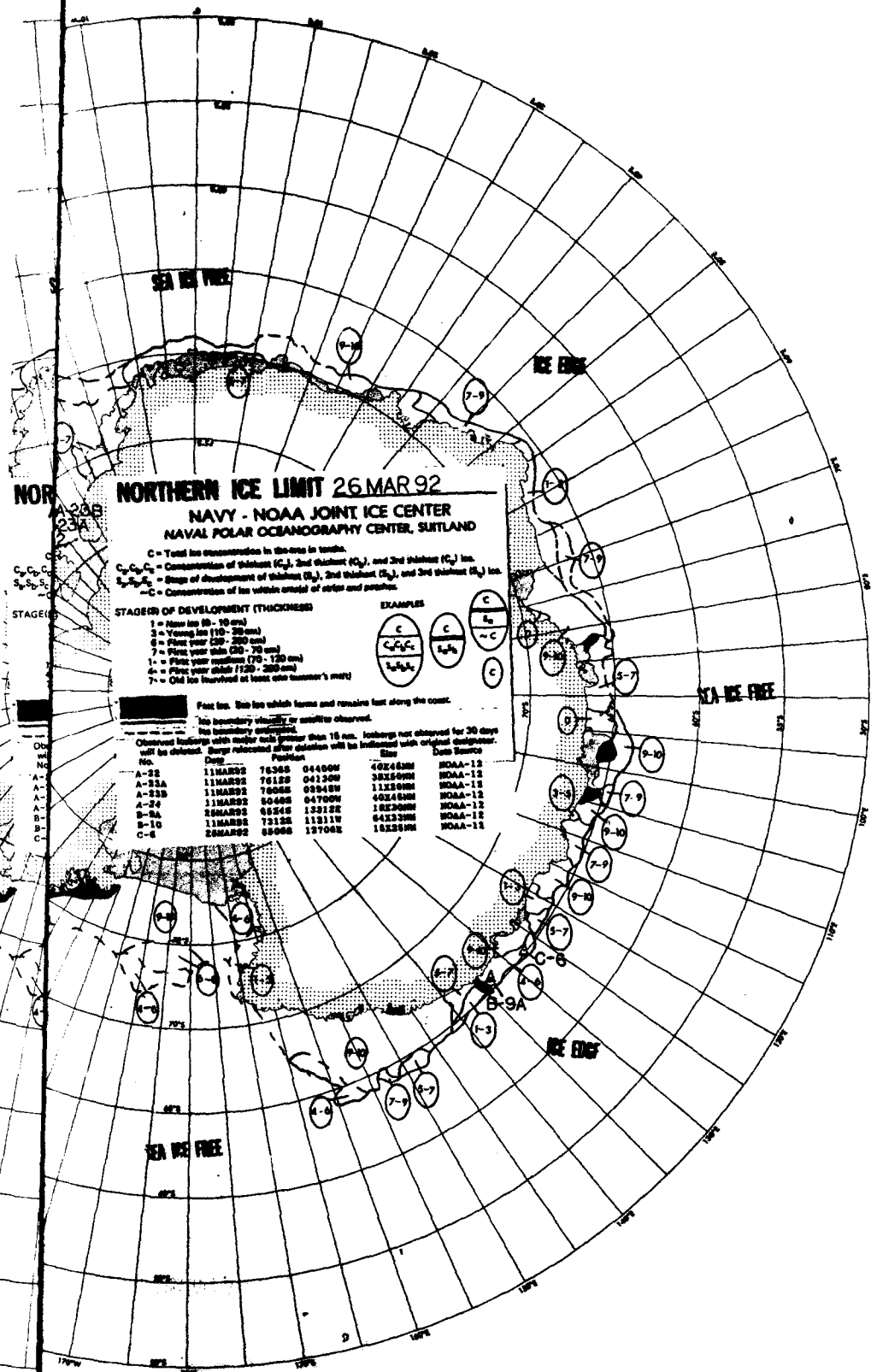


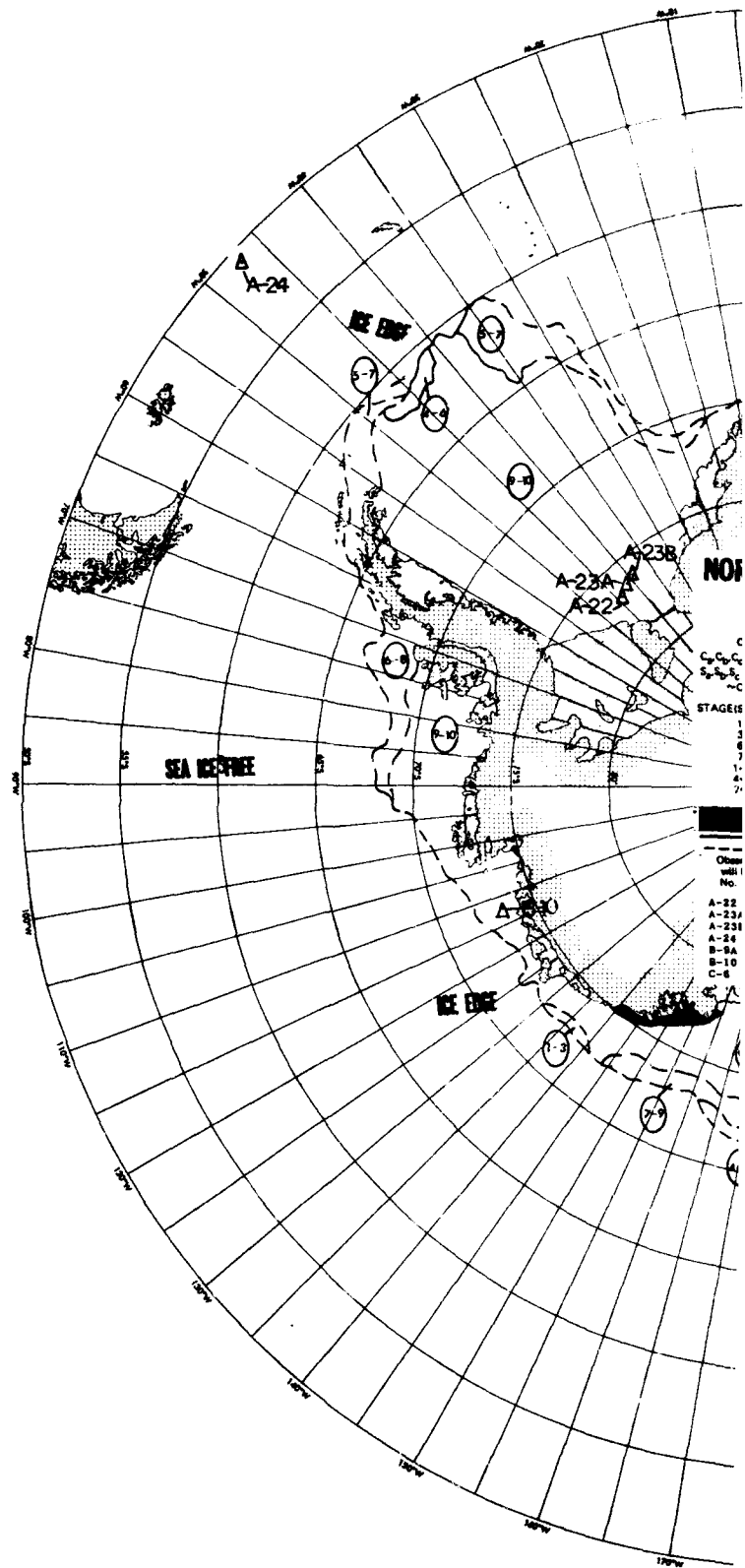


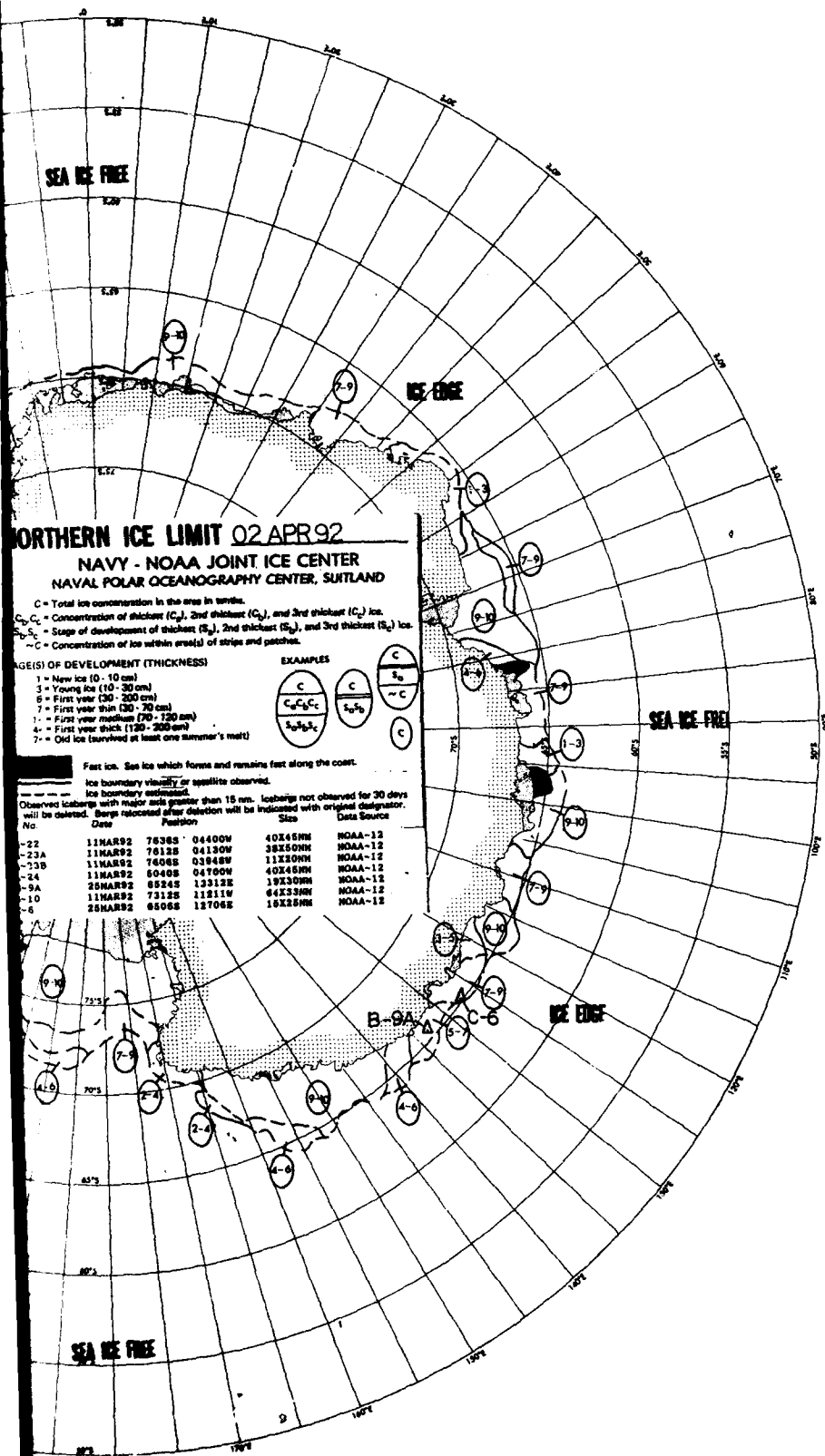


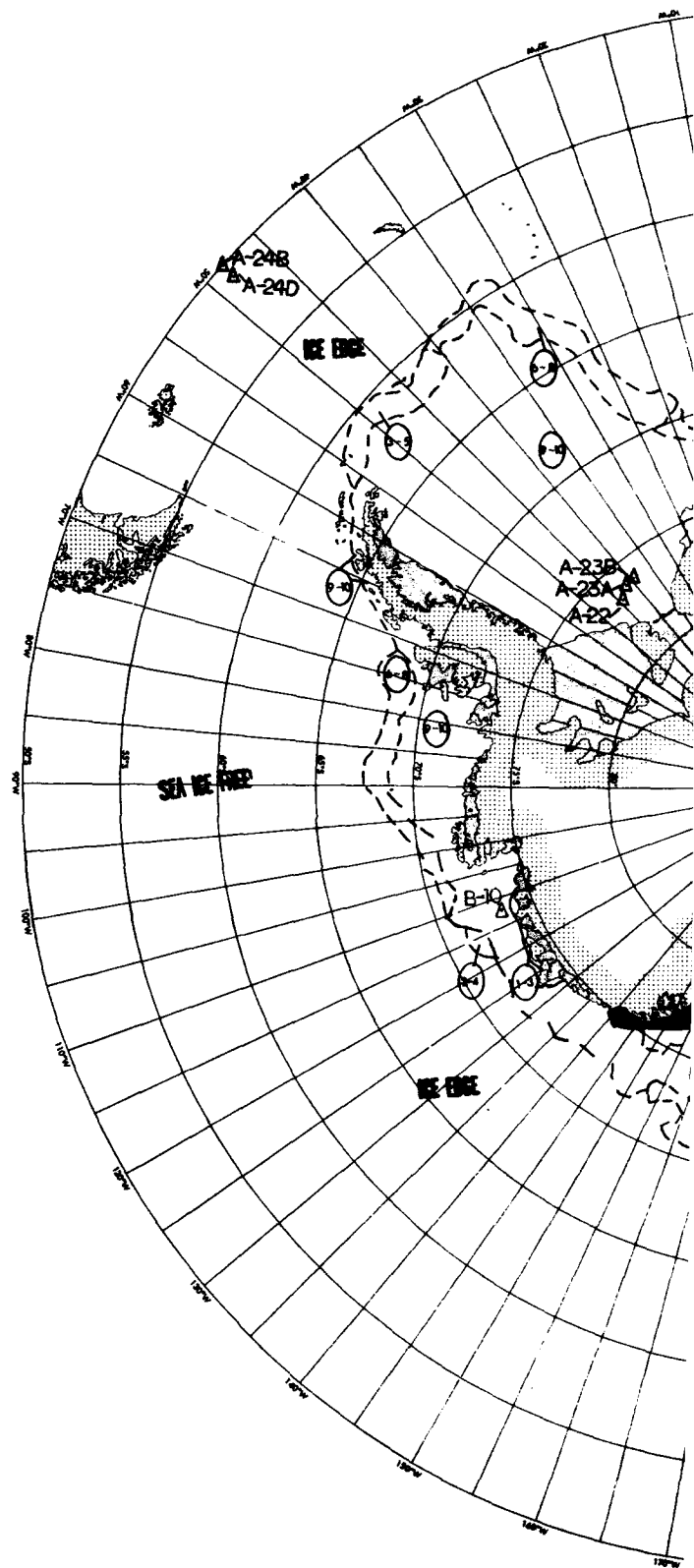


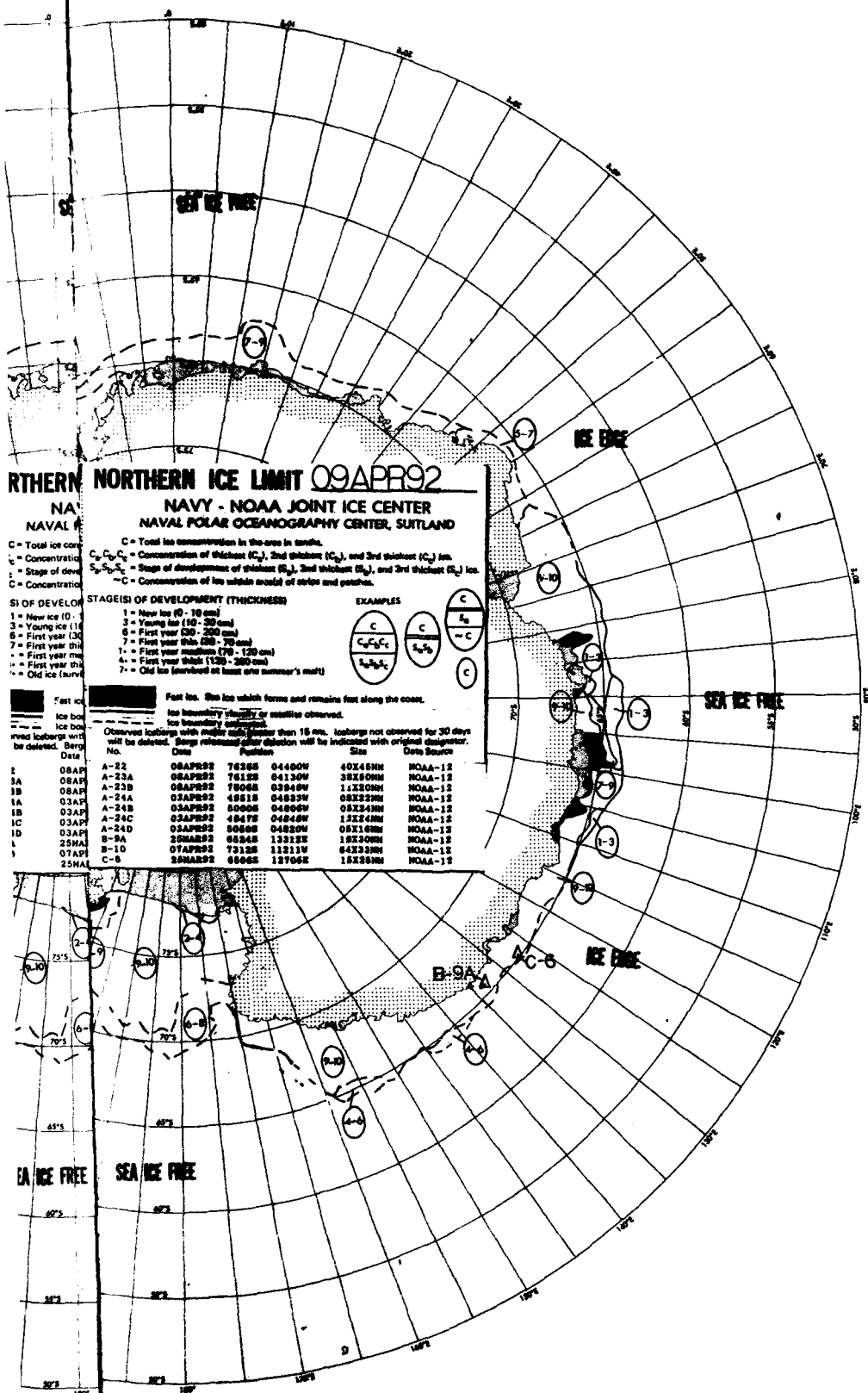


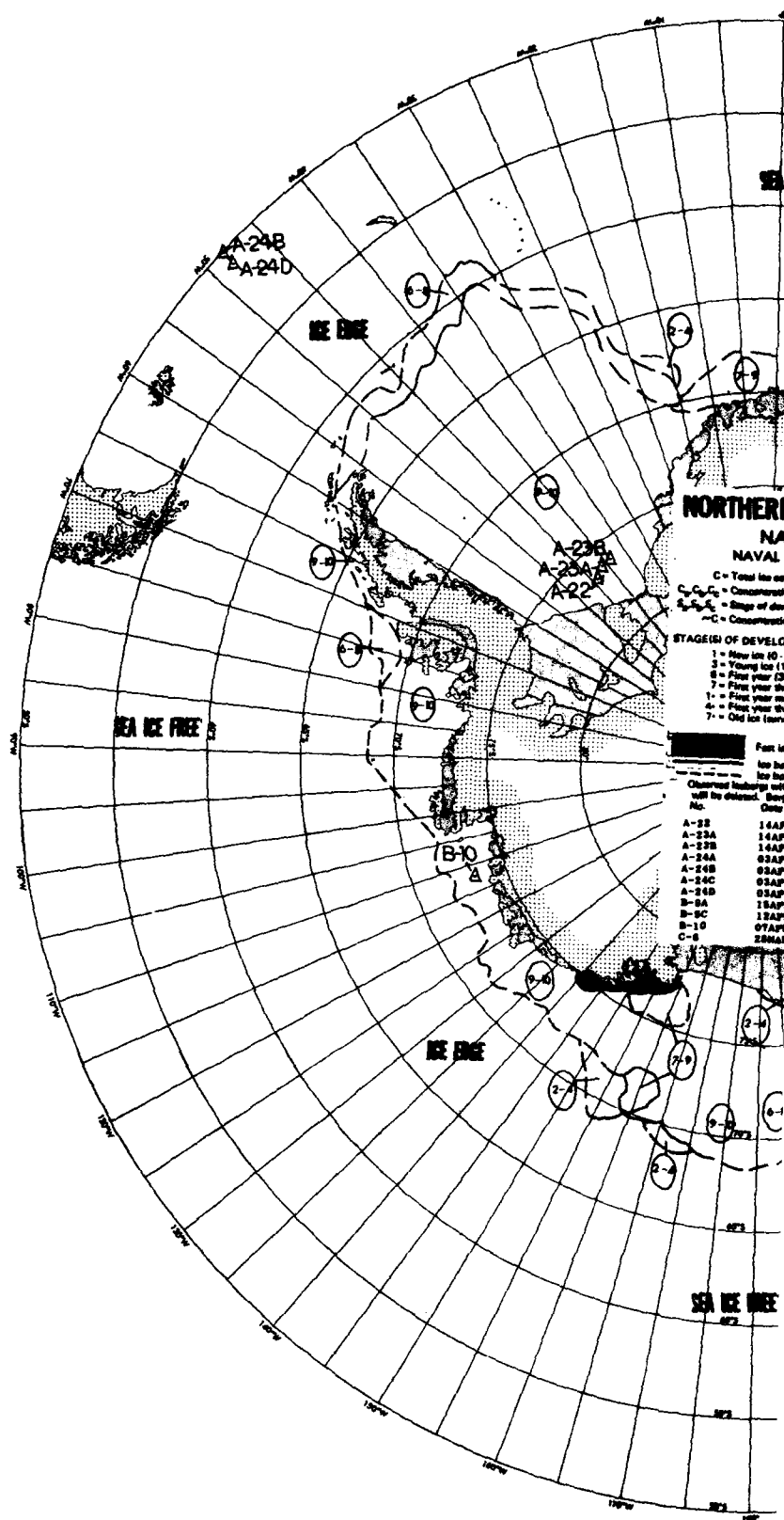


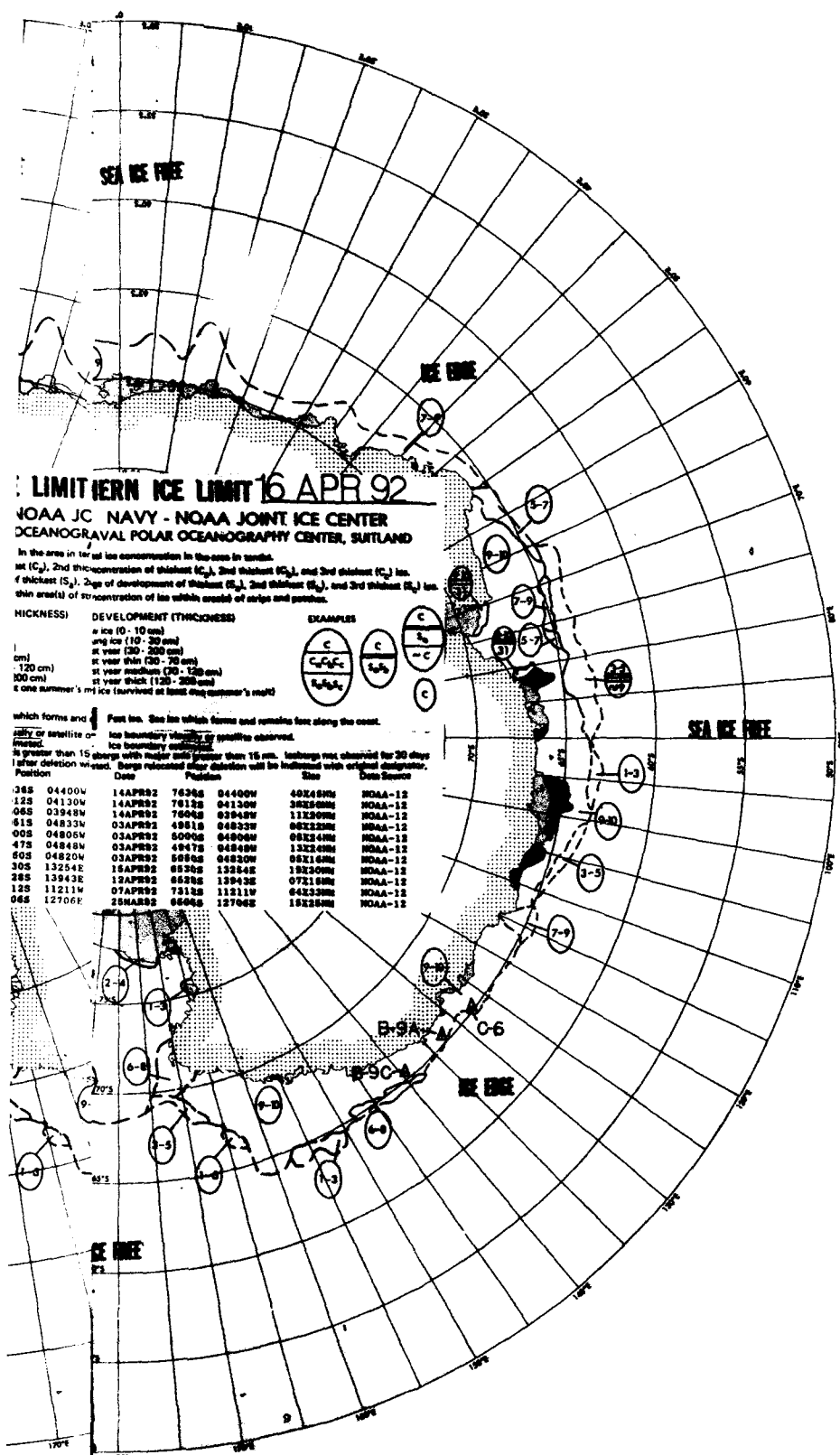


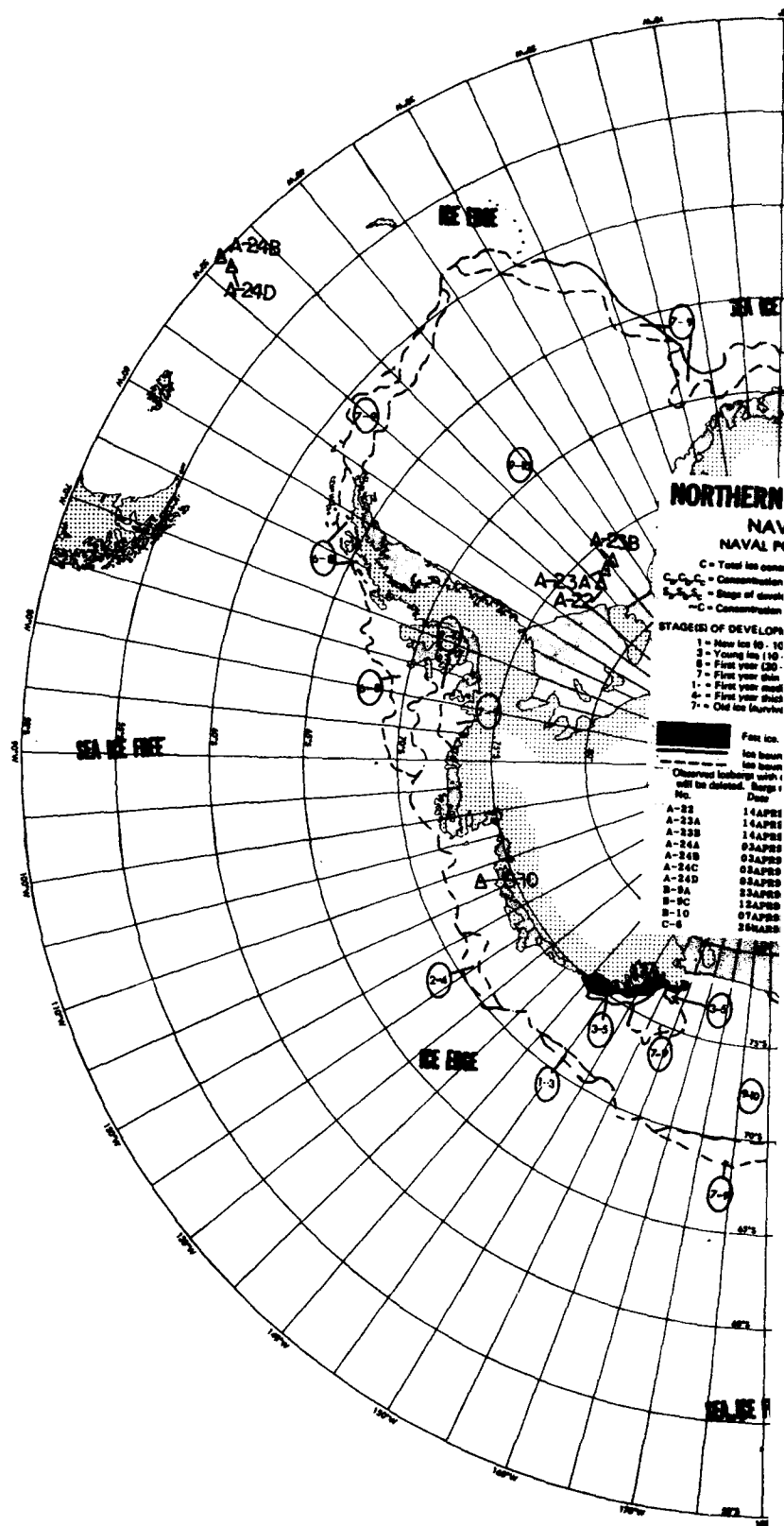


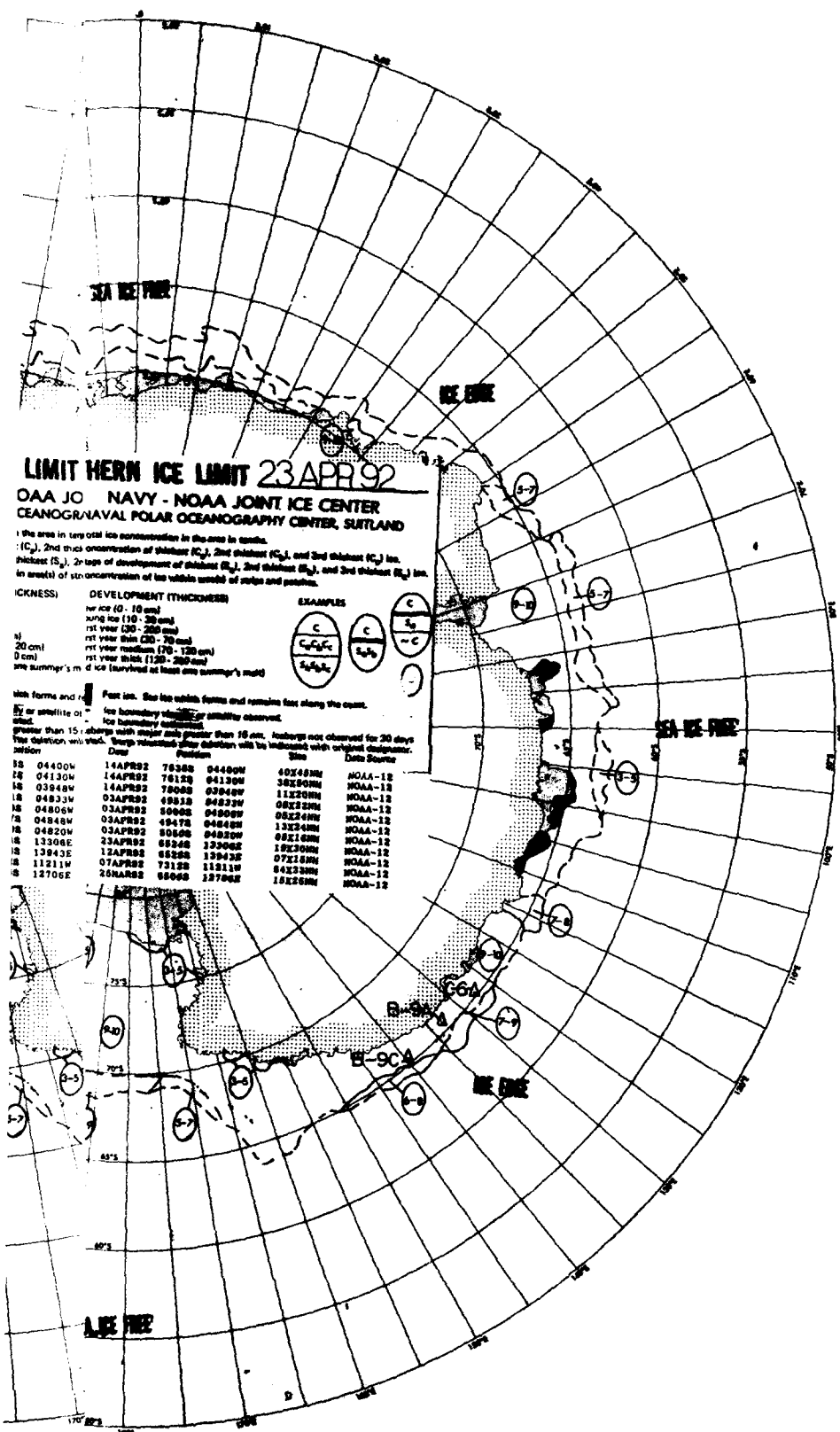


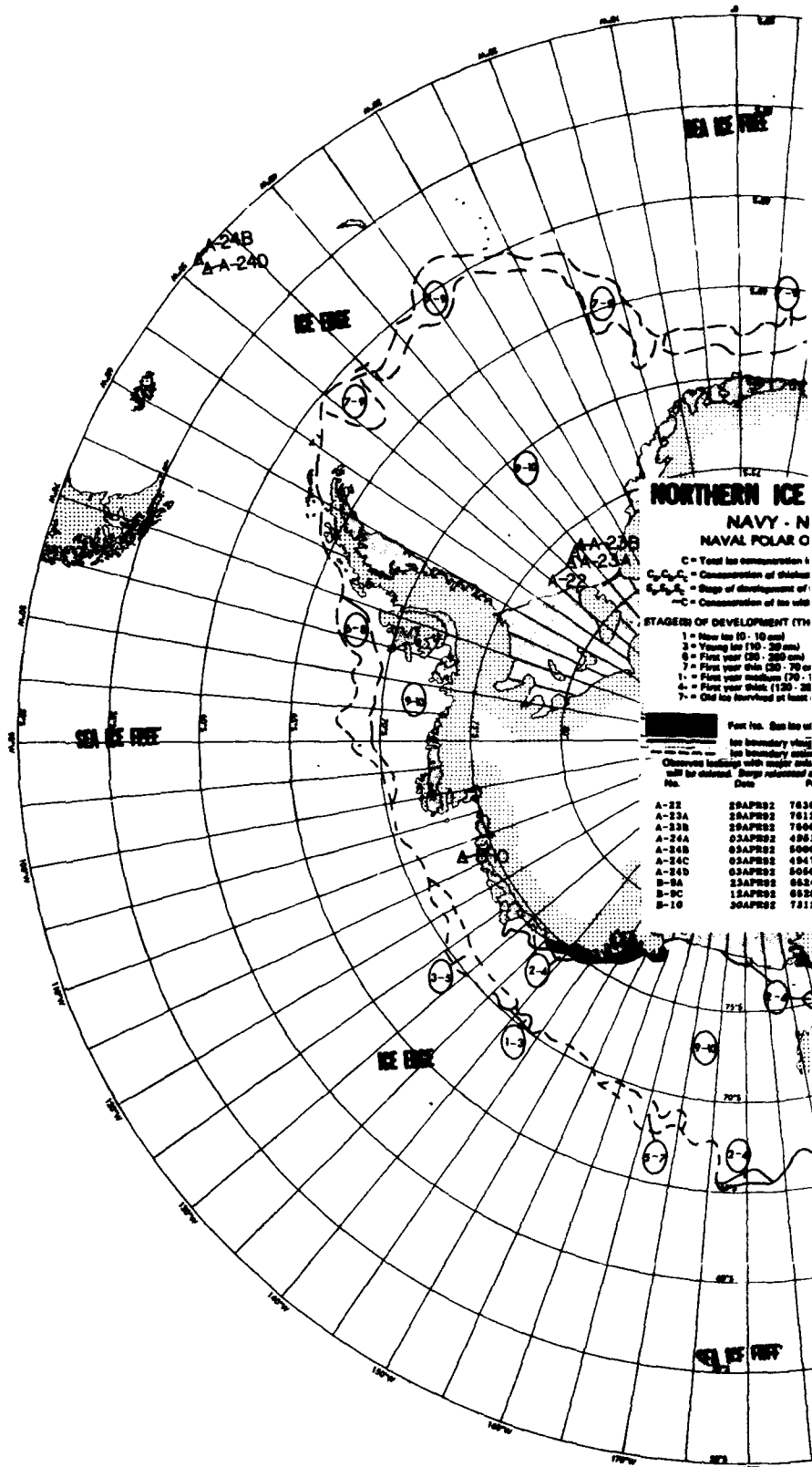


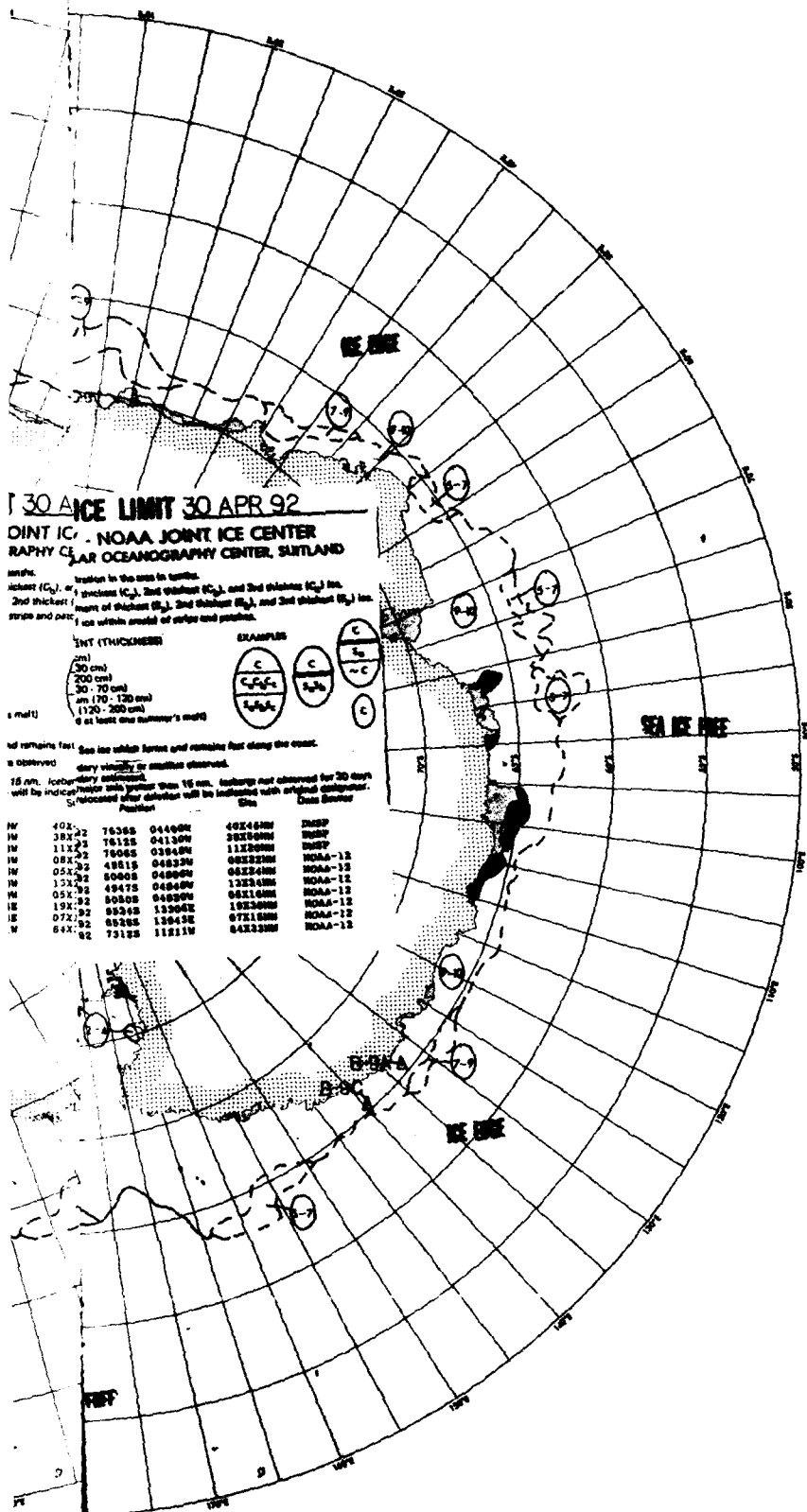


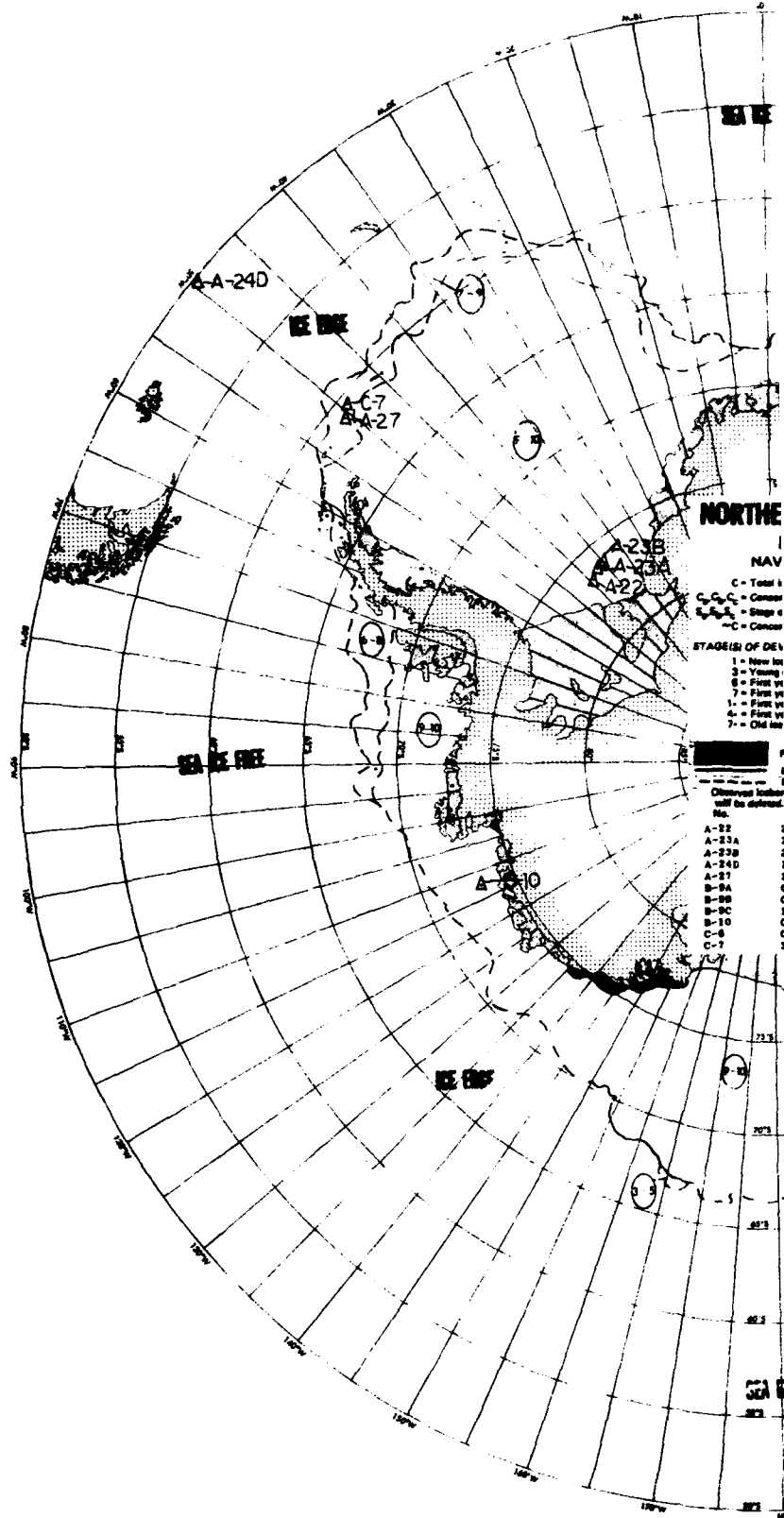












NORTHERN ICE LIMIT 07 MAY 92

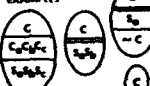
**NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND**

- C - Total ice concentration in the area in tenths.
- C_1, C_2, C_3 - Concentration of thickest (C_1), 2nd thickest (C_2), and 3rd thickest (C_3) ice.
- S_1, S_2, S_3 - Stage of development of thickest (S_1), 2nd thickest (S_2), and 3rd thickest (S_3) ice.
- C - Concentration of ice within straits of straits and passes.

STAGES OF DEVELOPMENT (THICKNESS)

- 1 - New ice (0 - 10 cm)
- 2 - Young ice (10 - 30 cm)
- 3 - First year (30 - 100 cm)
- 4 - First year (100 - 150 cm)
- 5 - First year (150 - 200 cm)
- 6 - First year (200 - 250 cm)
- 7 - Old ice (survived at least one summer's melt)

EXAMPLES



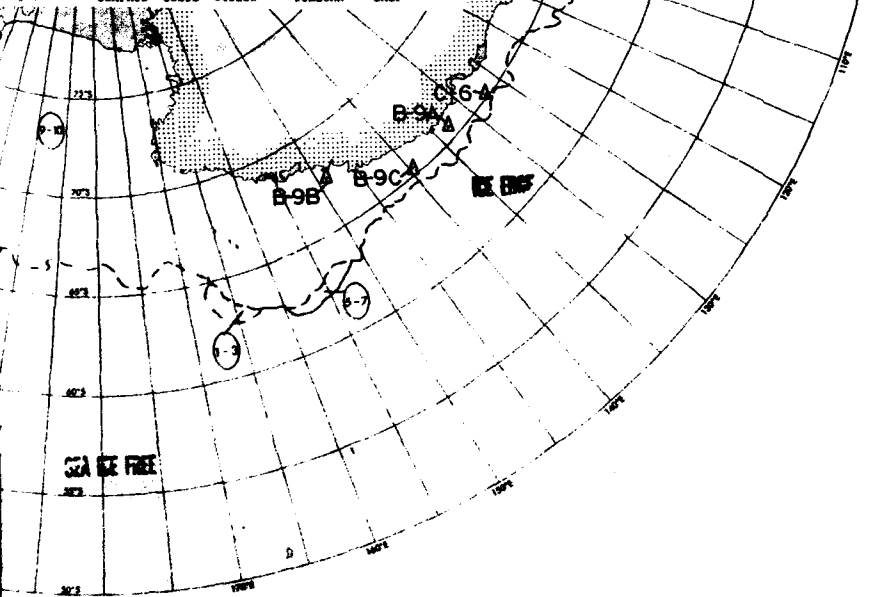
Part 1a. Size by which forms and numbers fast along the coast.

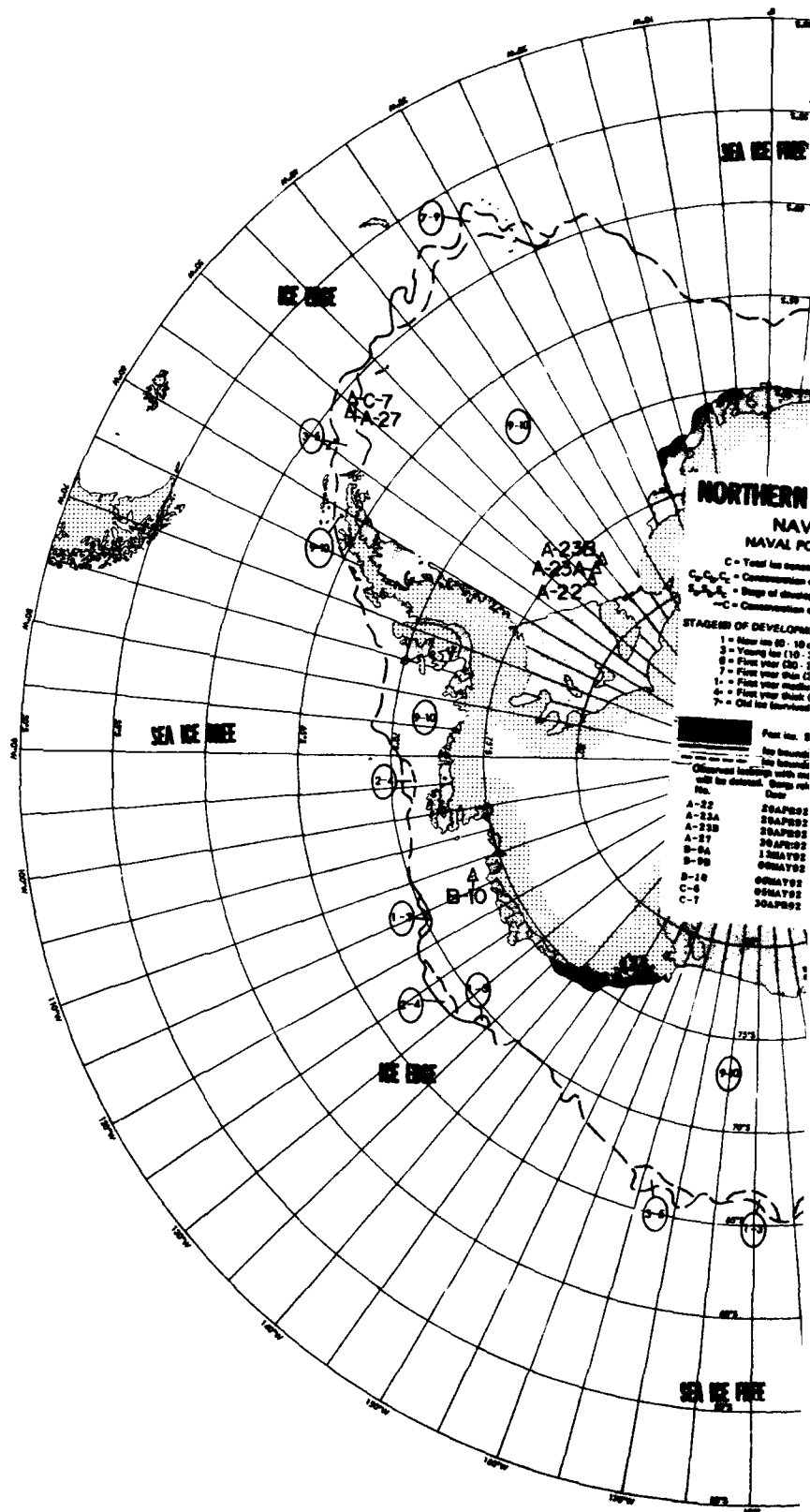
Ice boundary observed or reported.

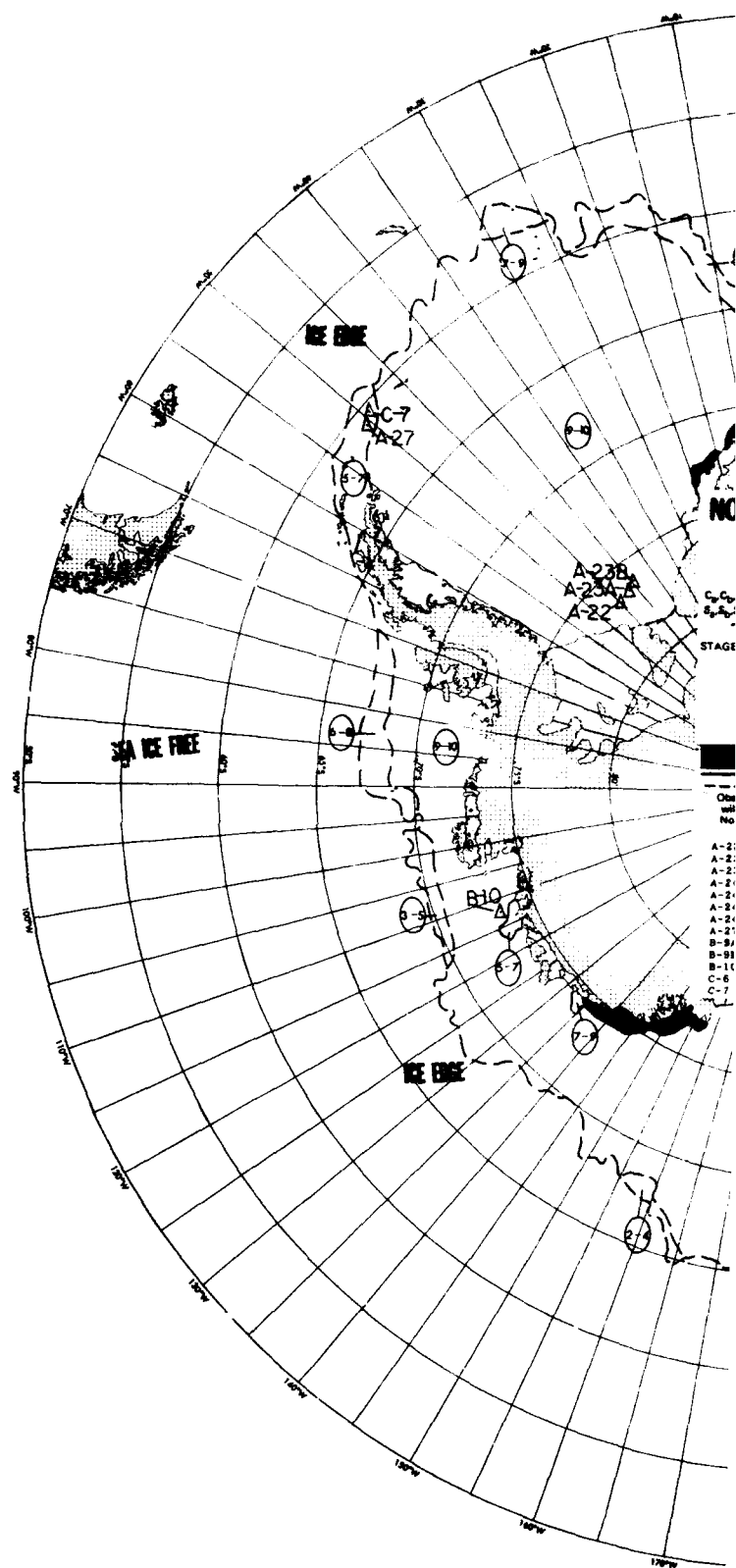
Observed icebergs with area and greater than 15 m. Icebergs not observed for 30 days will be deleted.

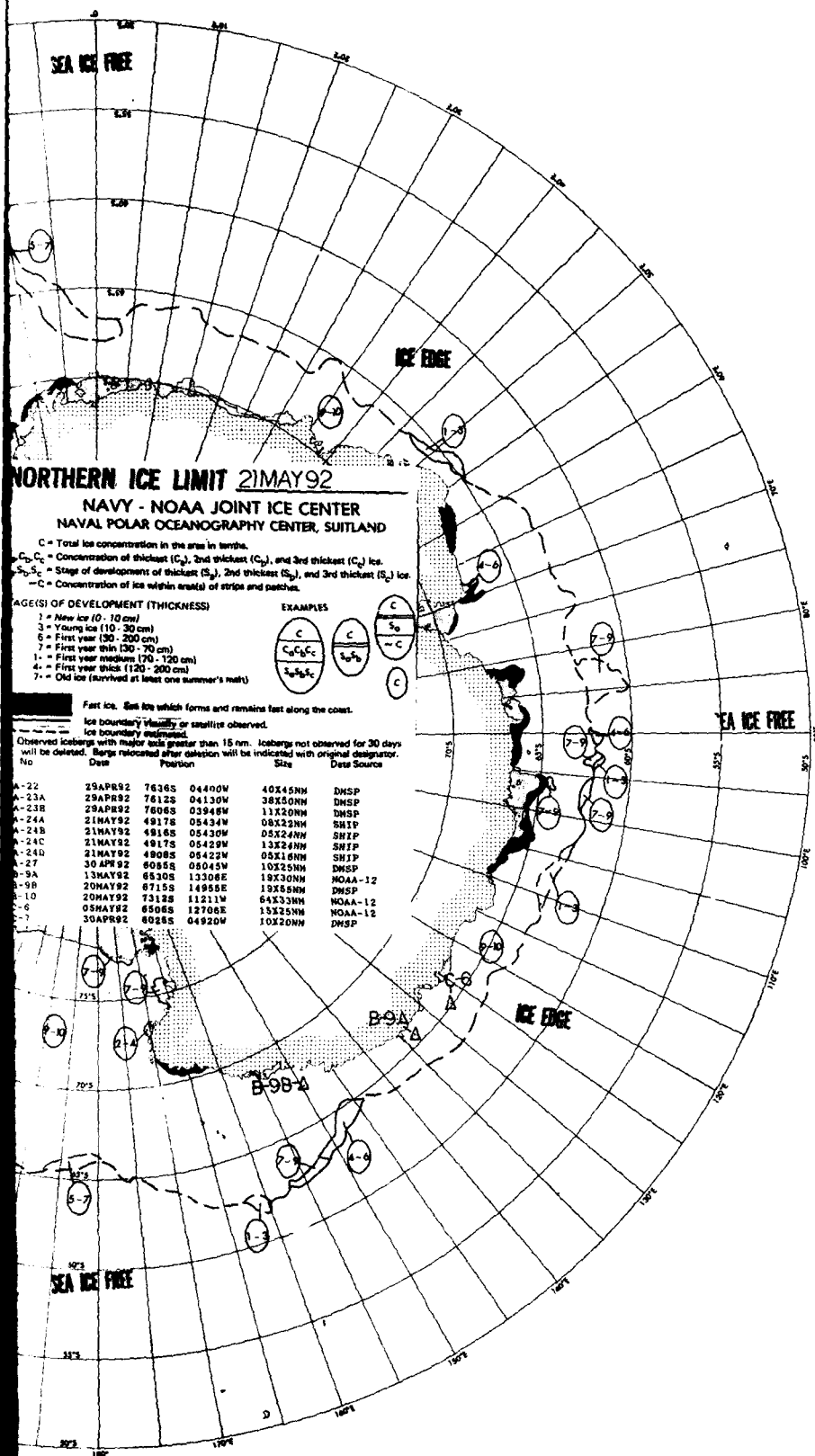
Icebergs reported after deletion will be indicated with original designator.

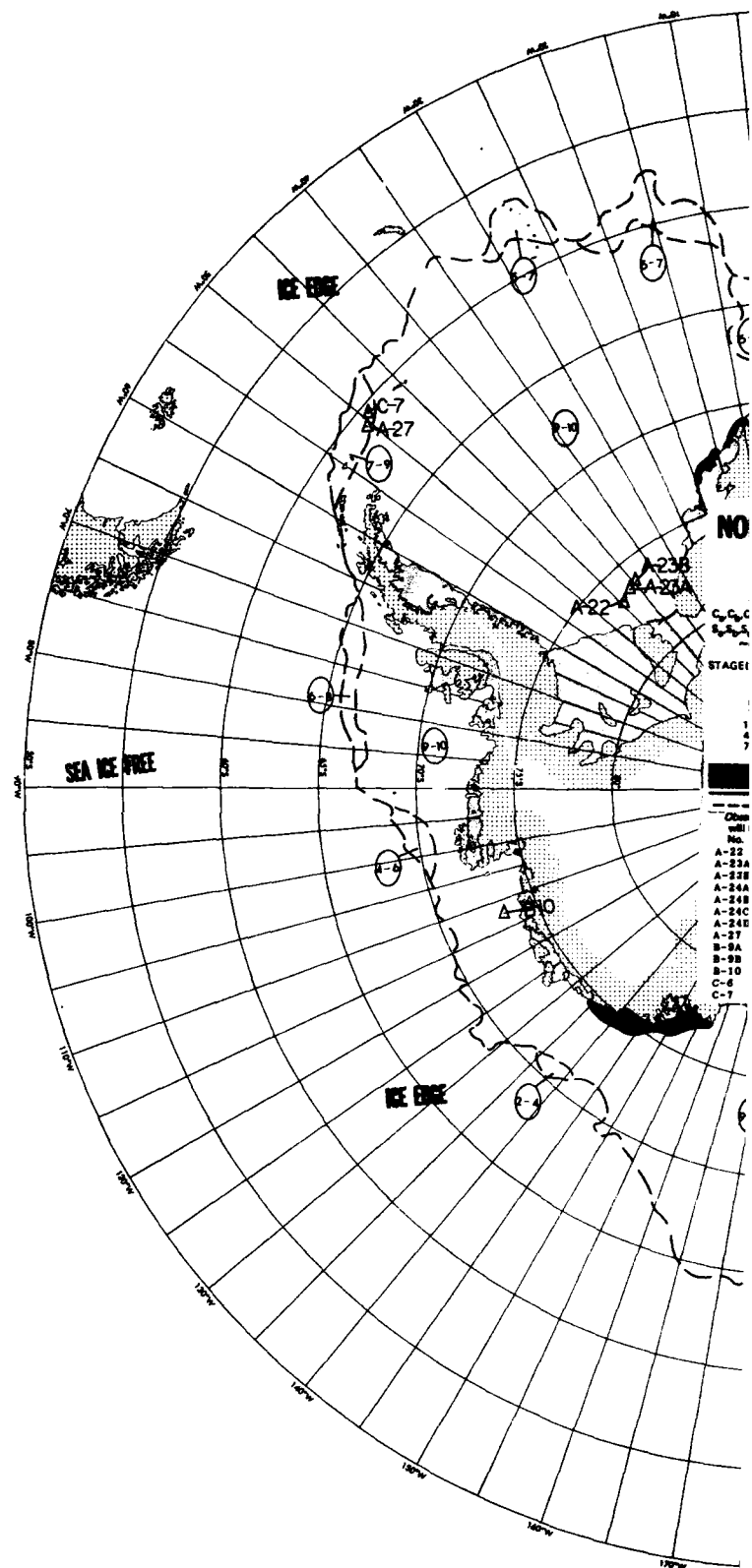
No.	Date	Position	Size	Data Source
A-22	28APR92	7436S 04400W	40X45NM	DMSP
A-23A	29APR92	7612S 04130W	38X50NM	DMSP
A-23B	29APR92	7606S 03948W	11X20NM	DMSP
A-24D	11APR92	6607S 04533W	06X10NM	NOAA-12
A-27	30 APR 92	6058S 05040W	10X15NM	DMSP
B-9A	08MAY92	6624S 13306E	19X10NM	NOAA-12
B-9B	08MAY92	6736S 14306E	18X15NM	DMSP
B-9C	12APR92	6828S 13943E	07X15NM	NOAA-12
B-10	08MAY92	7312S 11211W	64X13NM	NOAA-12
C-6	08MAY92	6606S 12768E	15X15NM	NOAA-12
C-7	30APR92	6025S 04920W	10X20NM	DMSP

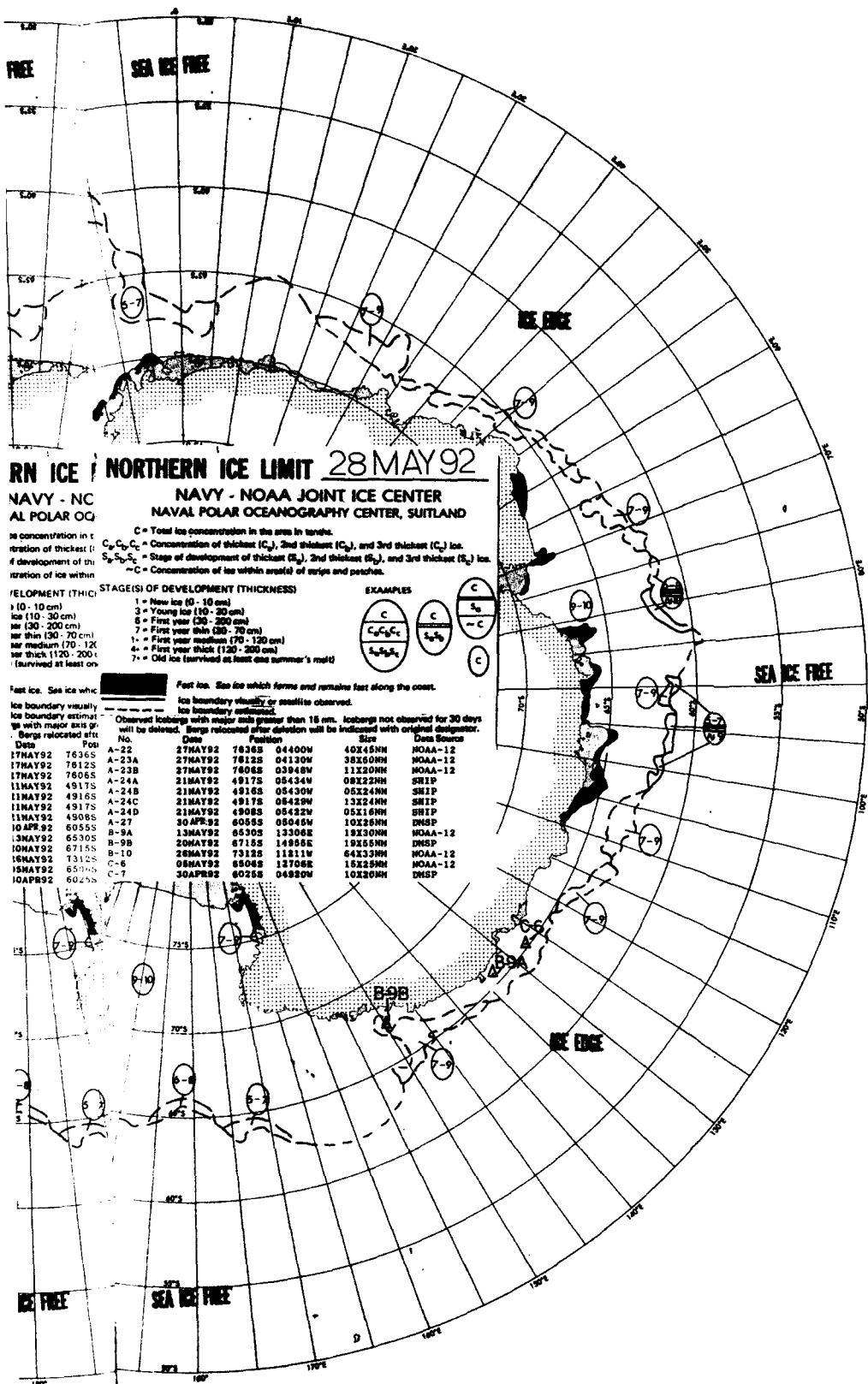


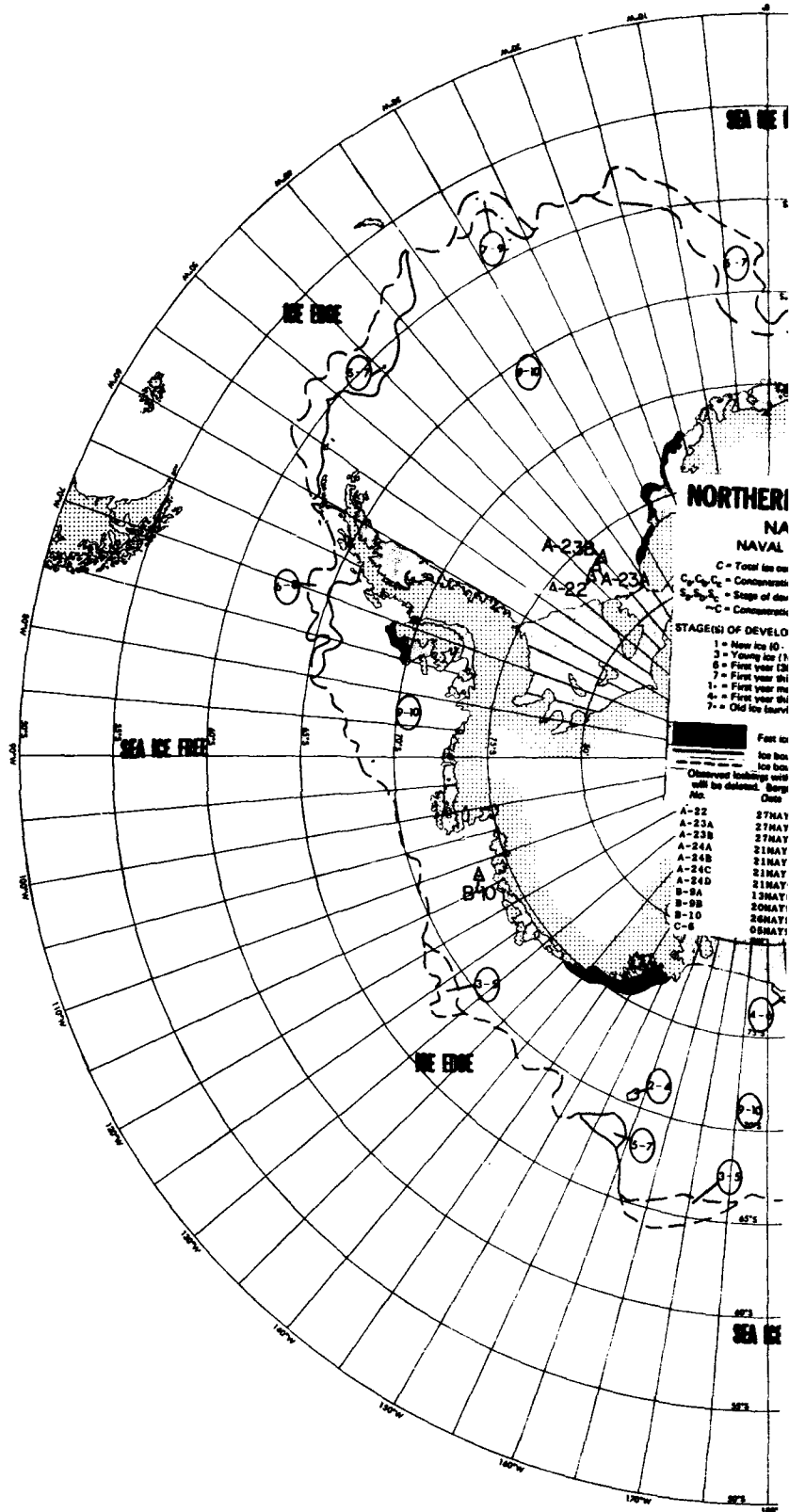


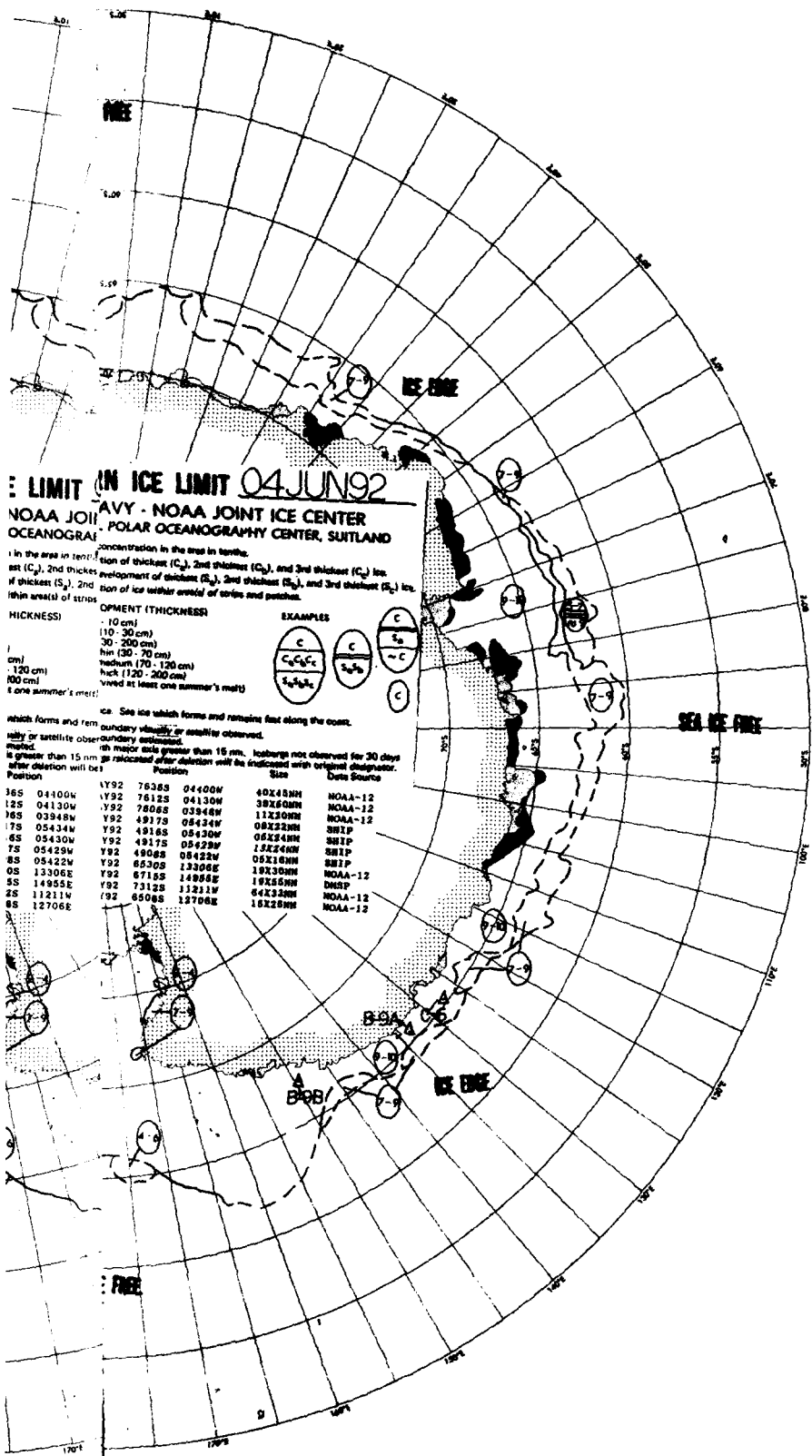






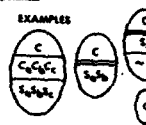






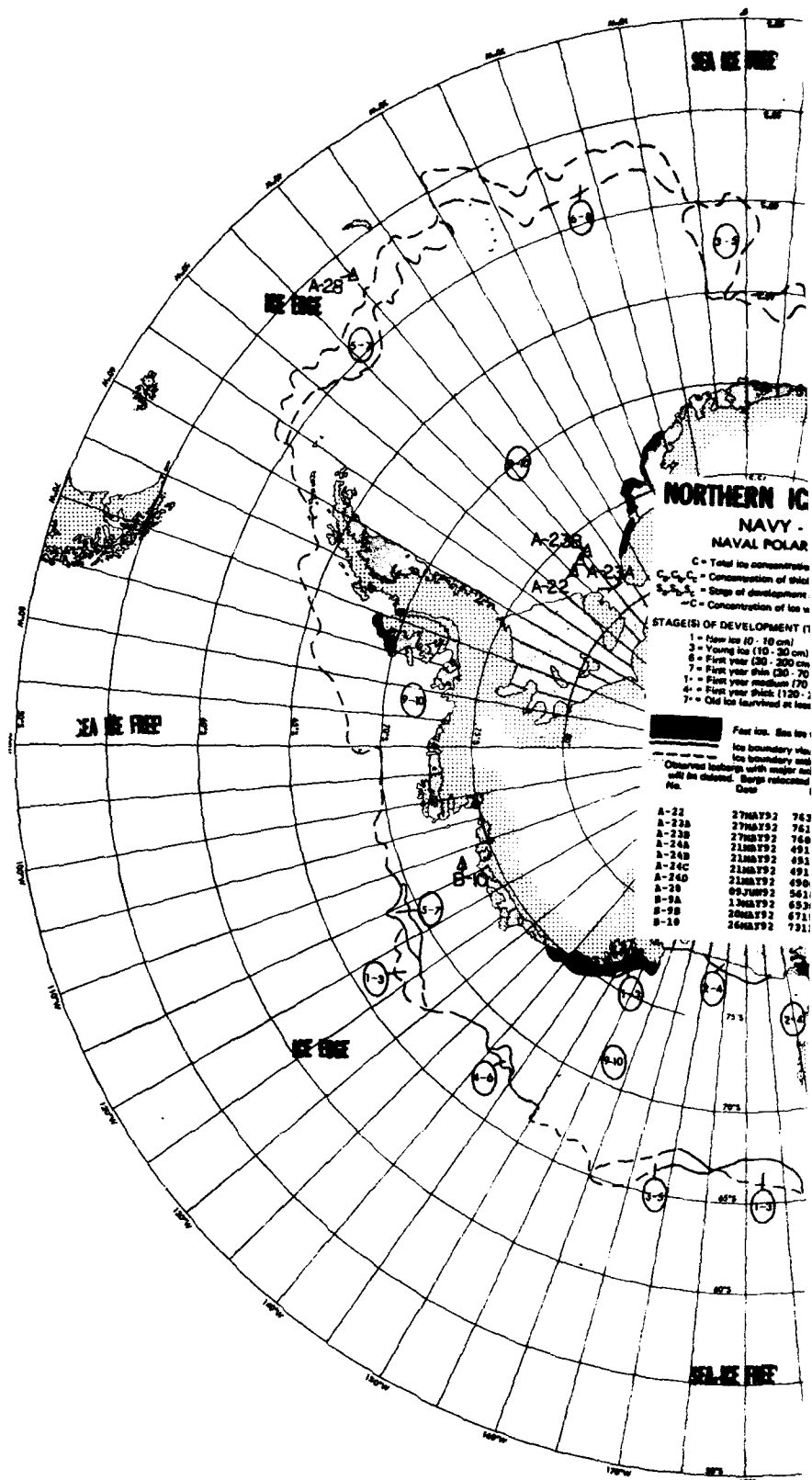
ICE LIMIT 04 JUN 92 **NOAA JOINT AVY - NOAA JOINT ICE CENTER** **OCEANOGRAPHIC POLAR OCEANOGRAPHY CENTER, SUTLAND**

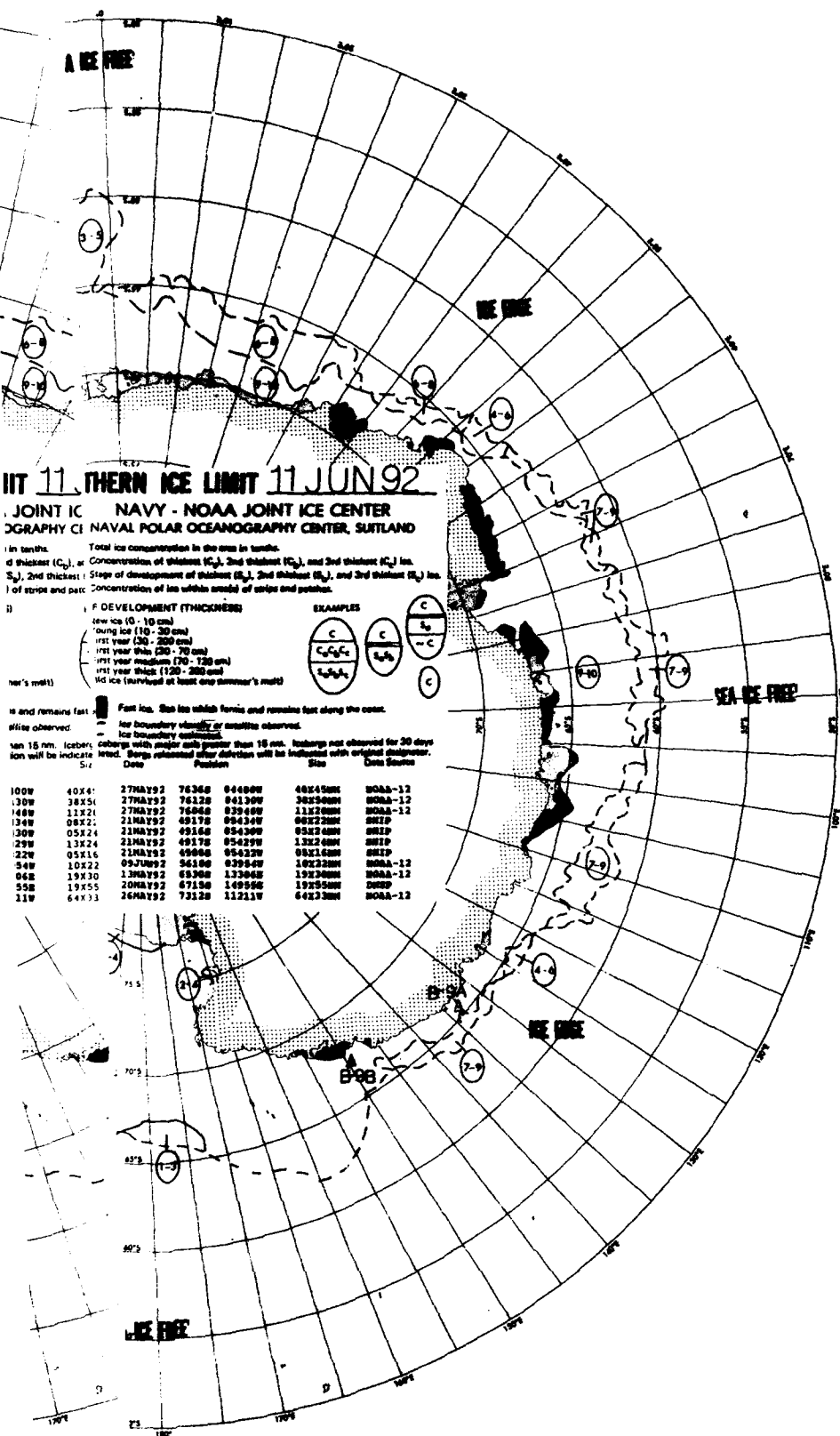
concentration in the area in tenths.
 1 in the area in tenths of thickness (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
 at (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
 If thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
 thin areas of strips.
 OPMENT (THICKNESS)
 10 cm
 10-30 cm
 30-200 cm
 thin (30-70 cm)
 medium (70-120 cm)
 thick (120-200 cm)
 lived at least one summer's melt)
 1 one summer's melt)



ice. See ice which forms and remains fast along the coast.
 which forms and remains fast along the coast.
 10 cm
 10-30 cm
 30-200 cm
 thin (30-70 cm)
 medium (70-120 cm)
 thick (120-200 cm)
 lived at least one summer's melt)
 1 one summer's melt)

Position	Size	Date Source
36S 04100N	40X48NH	NOAA-12
12S 04130W	38X60NH	NOAA-12
16S 03948W	11X30NH	NOAA-12
17S 05434W	08X22NH	SRIP
6S 05430W	05X24NH	SRIP
7S 05439W	12X24NH	SRIP
8S 05422W	05X16NH	SRIP
0S 13306E	10X30NH	NOAA-12
5S 14955E	10X30NH	DMSP
2S 11211W	6X23NH	NOAA-12
6S 12706E	18X29NH	NOAA-12



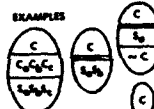


HERN ICE LIMIT 11 JUN 92

JOINT IC NAVY - NOAA JOINT ICE CENTER
 OGRAPHY CI NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

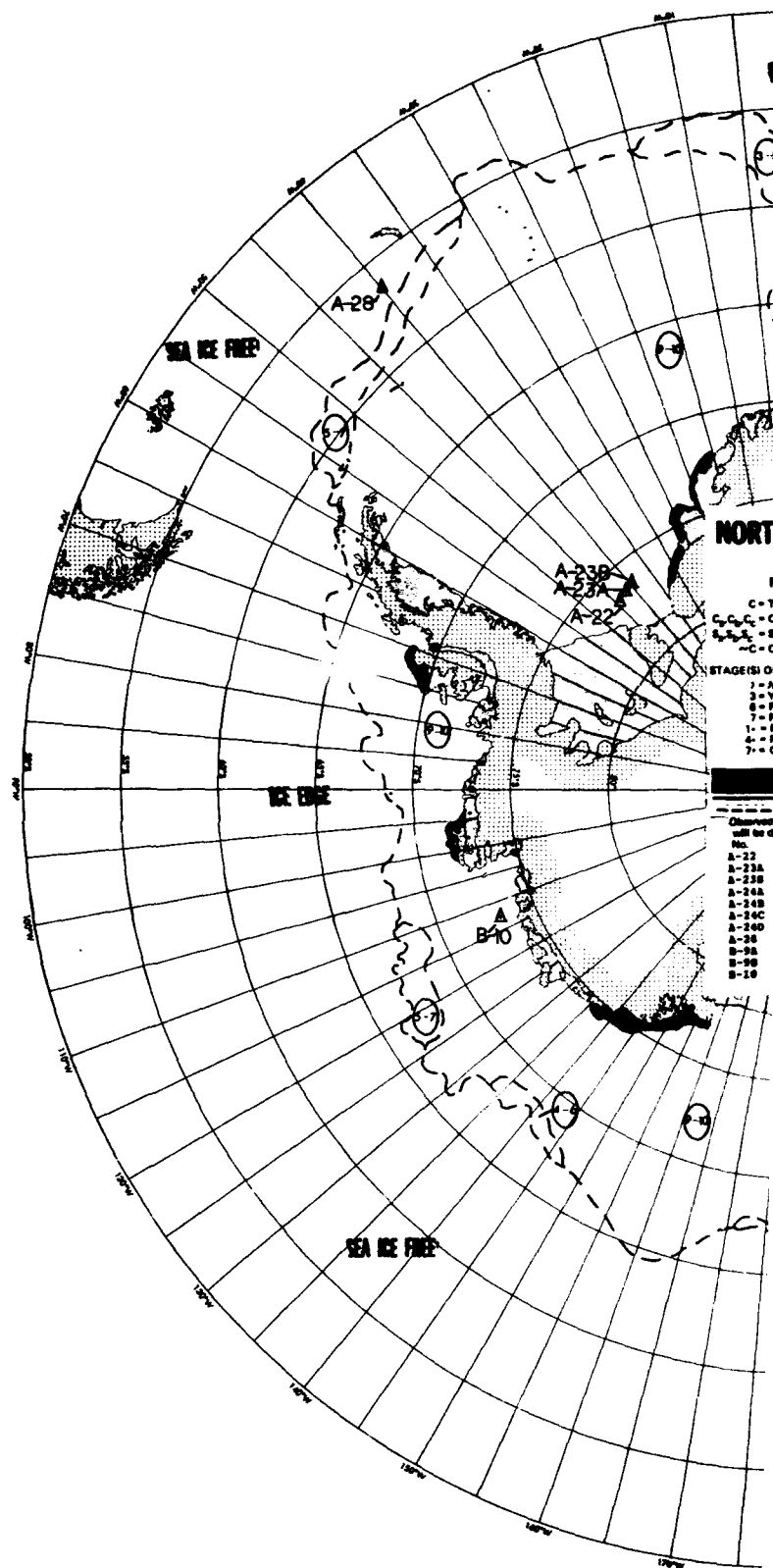
In tenths. Total ice concentration in the area in tenths.
 d thickest (C₁), or Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) in.
 S₁), 2nd thickest (S₂), and 3rd thickest (S₃) in.
 Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) in.
 Concentration of ice within circle of circle and patch.

- 1) F DEVELOPMENT (THICKNESS)
- new ice (10 - 10 cm)
- young ice (10 - 30 cm)
- 1st year thin (30 - 70 cm)
- 1st year medium (70 - 120 cm)
- 1st year thick (120 - 200 cm)
- old ice (survived at least one summer's melt)



Fast ice. Sea ice which forms and remains fast along the coast.
 ice boundary visually or satellite observed.
 ice boundary estimated.
 icebergs with major axis greater than 15 m. Icebergs not observed for 30 days
 listed. Berge released after delivery will be indicated with original designator.

Lat	Long	Date	Position	Size	Data Source
100W	40X4	27MAY92	76360	04400W	40X450M NOAA-12
130W	18X51	27MAY92	76120	04130W	30X500M NOAA-12
140W	11X21	27MAY92	76060	03940W	11X2700M NOAA-12
130W	08X22	21MAY92	49170	05434W	00X2200M SHIP
130W	05X24	21MAY92	49160	05430W	05X2400M SHIP
129W	13X24	21MAY92	49170	05429W	13X2400M SHIP
122W	05X16	21MAY92	49060	05422W	08X1600M SHIP
94W	10X22	09JUN92	56100	03964W	10X2200M NOAA-12
04E	19X30	13MAY92	61900	13304E	19X300M NOAA-12
55E	19X55	20MAY92	67150	14956E	19X550M SHIP
11W	64X33	26MAY92	73120	11211W	64X330M NOAA-12



ICE LIN
Y - NOAA
OLAR OCEAN

ation in the
ment of thick
of ice within are

MENT (THICKNE
0 cm)
1-30 cm)
2-30-70 cm)
3-70-120 cm)
4-120-200 cm)
5-200 cm and
over at least one su

a. See ice which is
undary visually or
undary estimated
in major and grate
relocated after d

Postio
A-22 74368
A-23A 74128
A-23B 74068
A-24 49178
A-24B 49168
A-24C 49178
A-24D 49068
A-25 56188
A-26 63008
A-27 67158
A-28 73128

NORTHERN ICE LIMIT 18 JUN 92

NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

C = Total ice concentration in the area in tenths.
C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
S₁, S₂, S₃ = Stage of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
-C = Concentration of ice within areas of ridges and patches.

STAGES OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 2 = Young ice (10 - 30 cm)
- 3 = First year ice (30 - 70 cm)
- 4 = First year ice (70 - 120 cm)
- 5 = First year ice (120 - 200 cm)
- 6 = Old ice (over 200 cm)

EXAMPLES



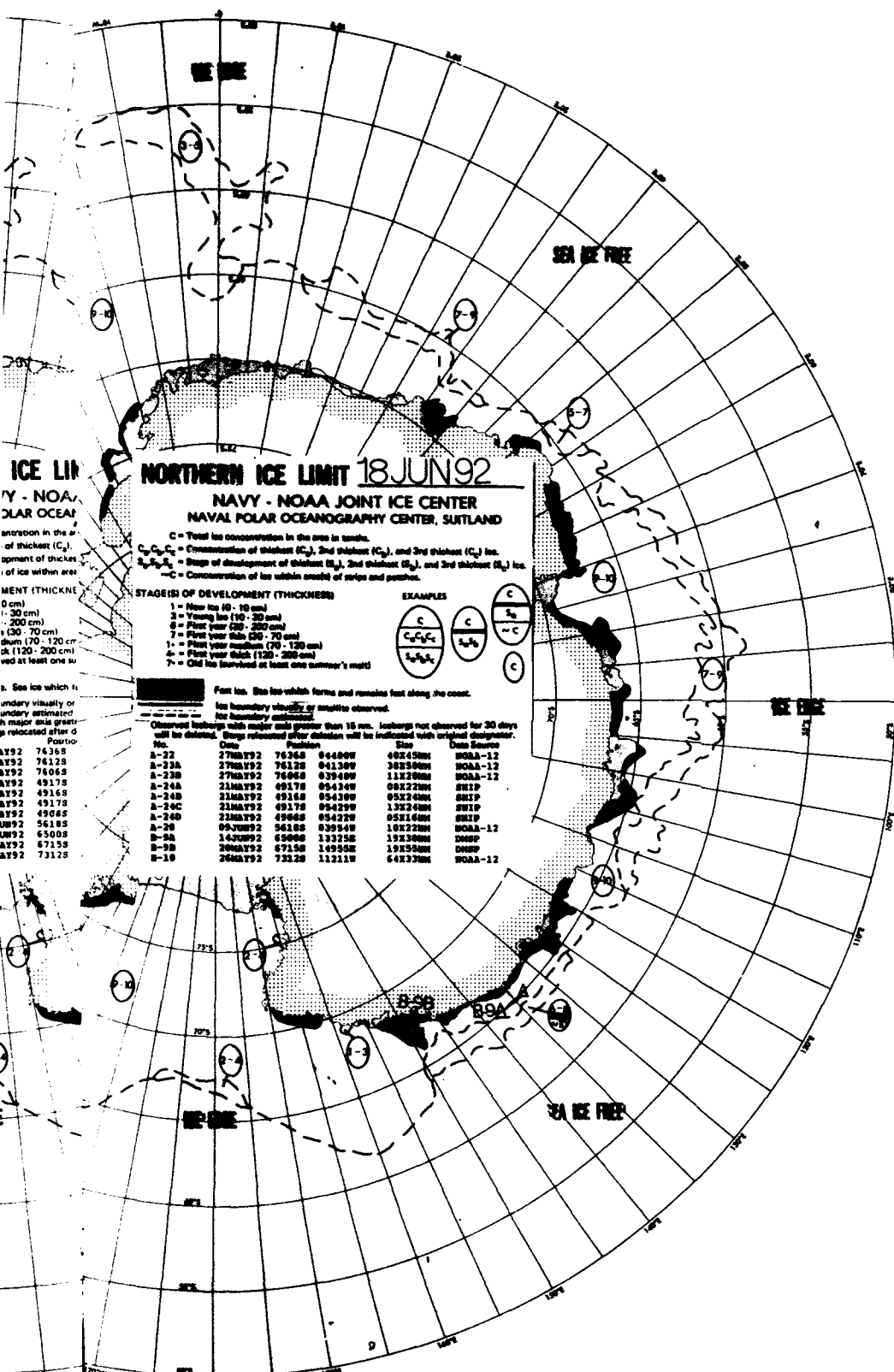
Fast ice. See ice which forms and remains fast along the coast.

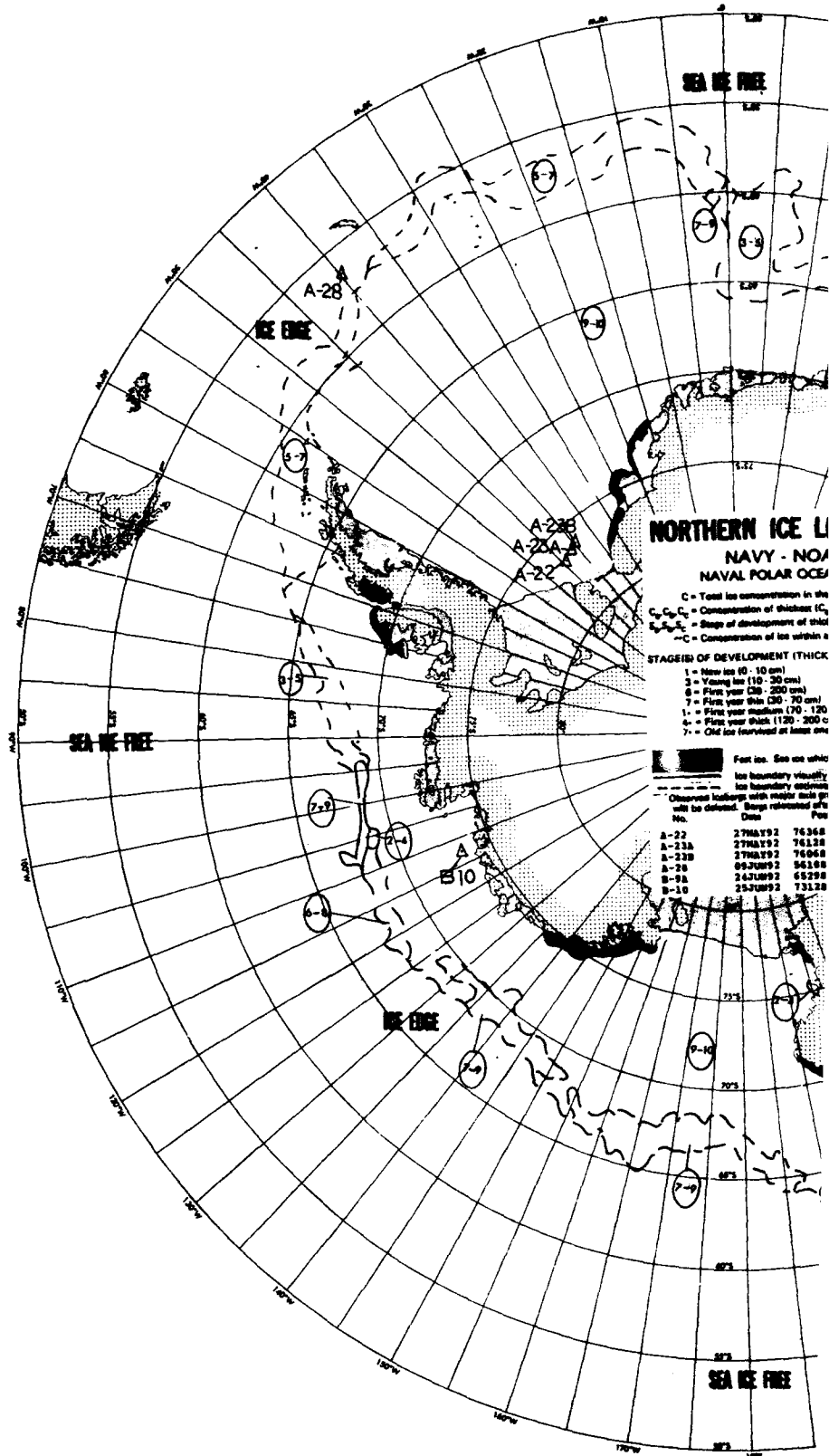
Ice boundary visually or satellite observed.

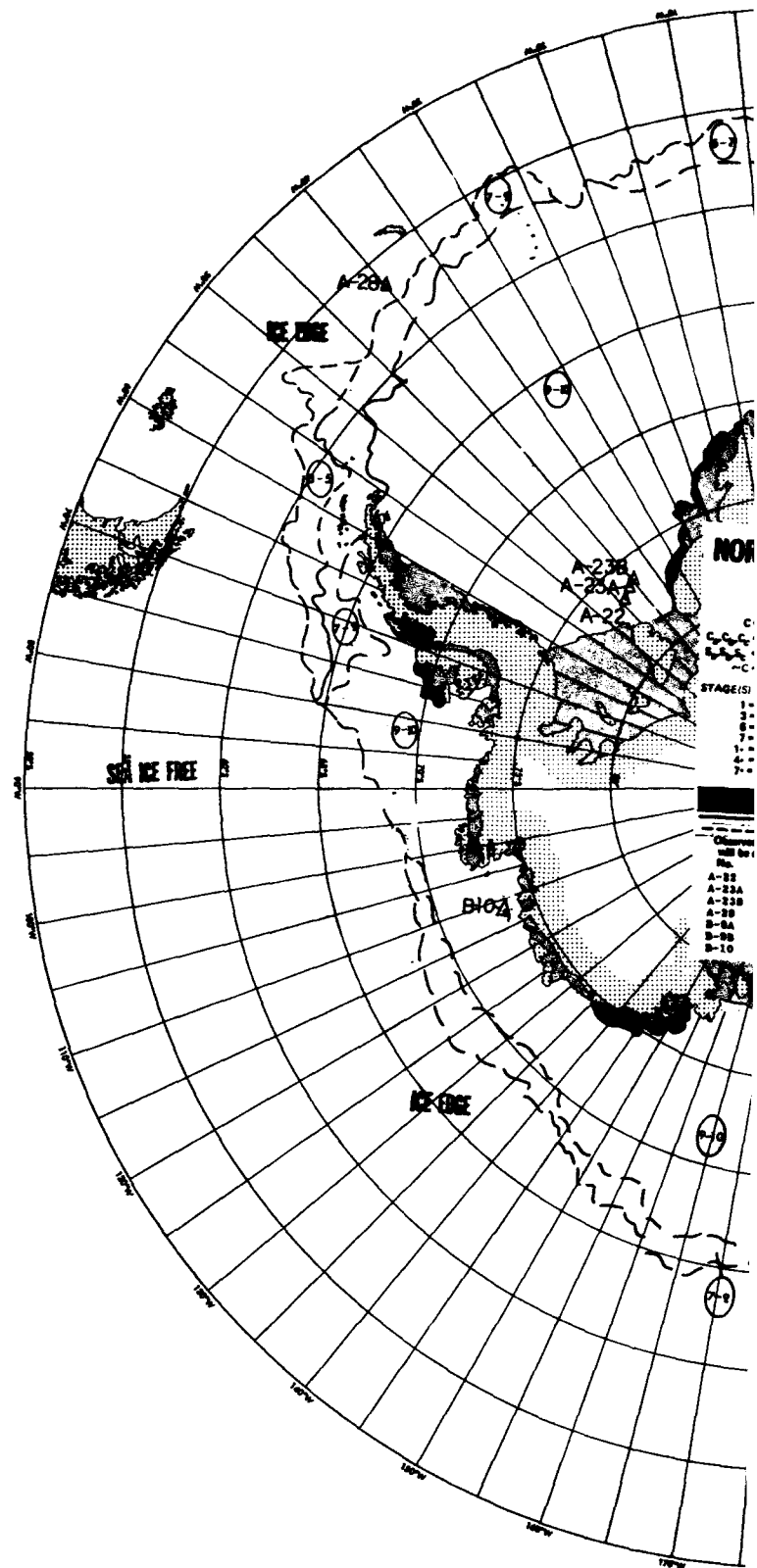
Ice boundary estimated.

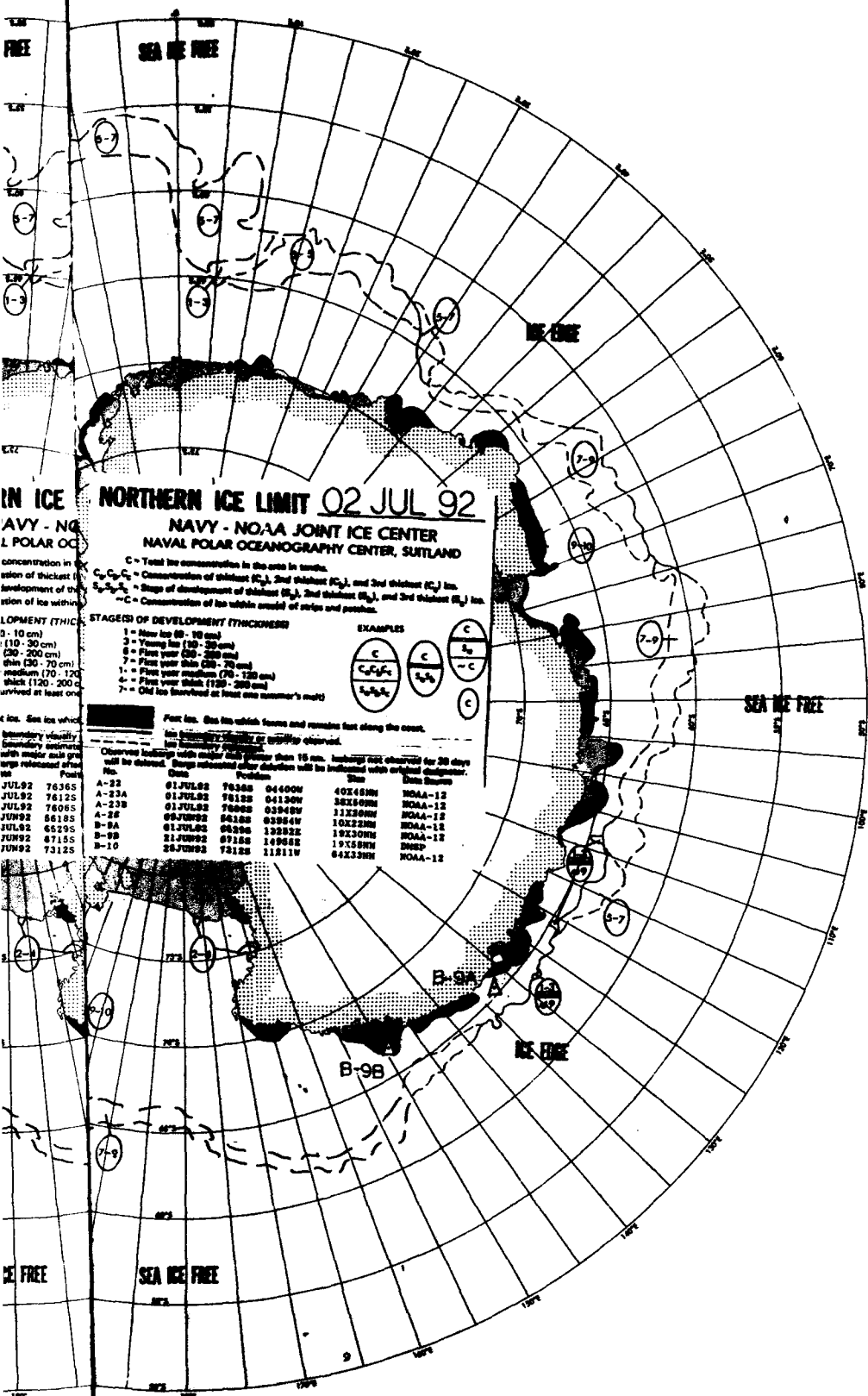
Observed icebergs with major axis greater than 15 m. Icebergs not observed for 30 days will be deleted. Bergs released after deletion will be indicated with original designation.

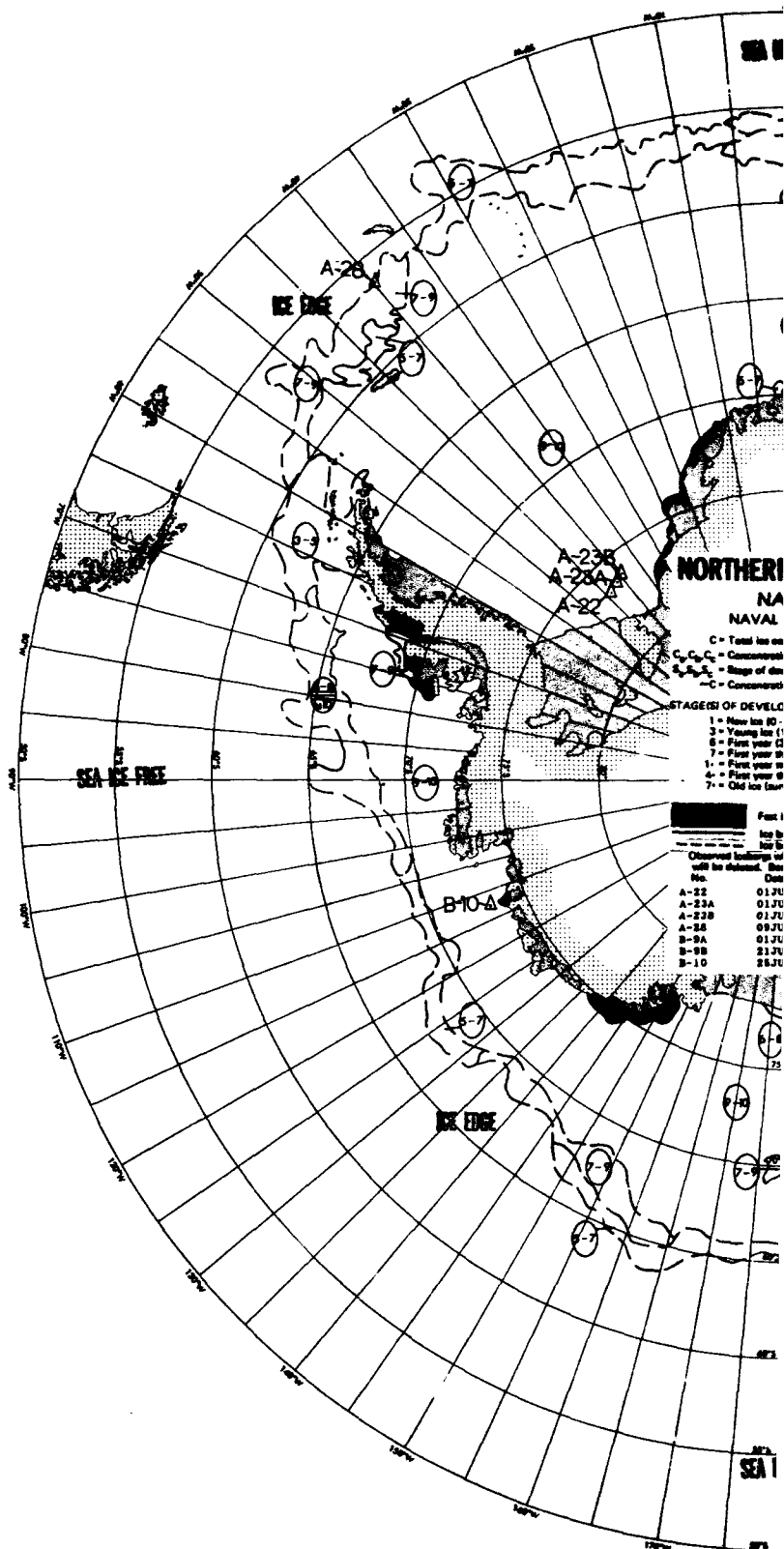
No.	Date	Position	Size	Data Source
A-22	27MAY92	76368 044000	40X450M	NOAA-12
A-23A	27MAY92	76128 041300	30X500M	NOAA-12
A-23B	27MAY92	76068 039400	11X200M	NOAA-12
A-24	21MAY92	49178 054340	08X220M	SRIP
A-24B	21MAY92	49168 054300	05X240M	SRIP
A-24C	21MAY92	49178 054390	13X240M	SRIP
A-24D	21MAY92	49068 054320	05X240M	SRIP
A-25	09JUN92	56188 039540	10X220M	NOAA-12
B-2A	14JUN92	63008 133258	15X300M	DMSP
B-2B	20MAY92	67158 149538	19X500M	DMSP
B-10	26MAY92	73128 112110	64X370M	NOAA-12

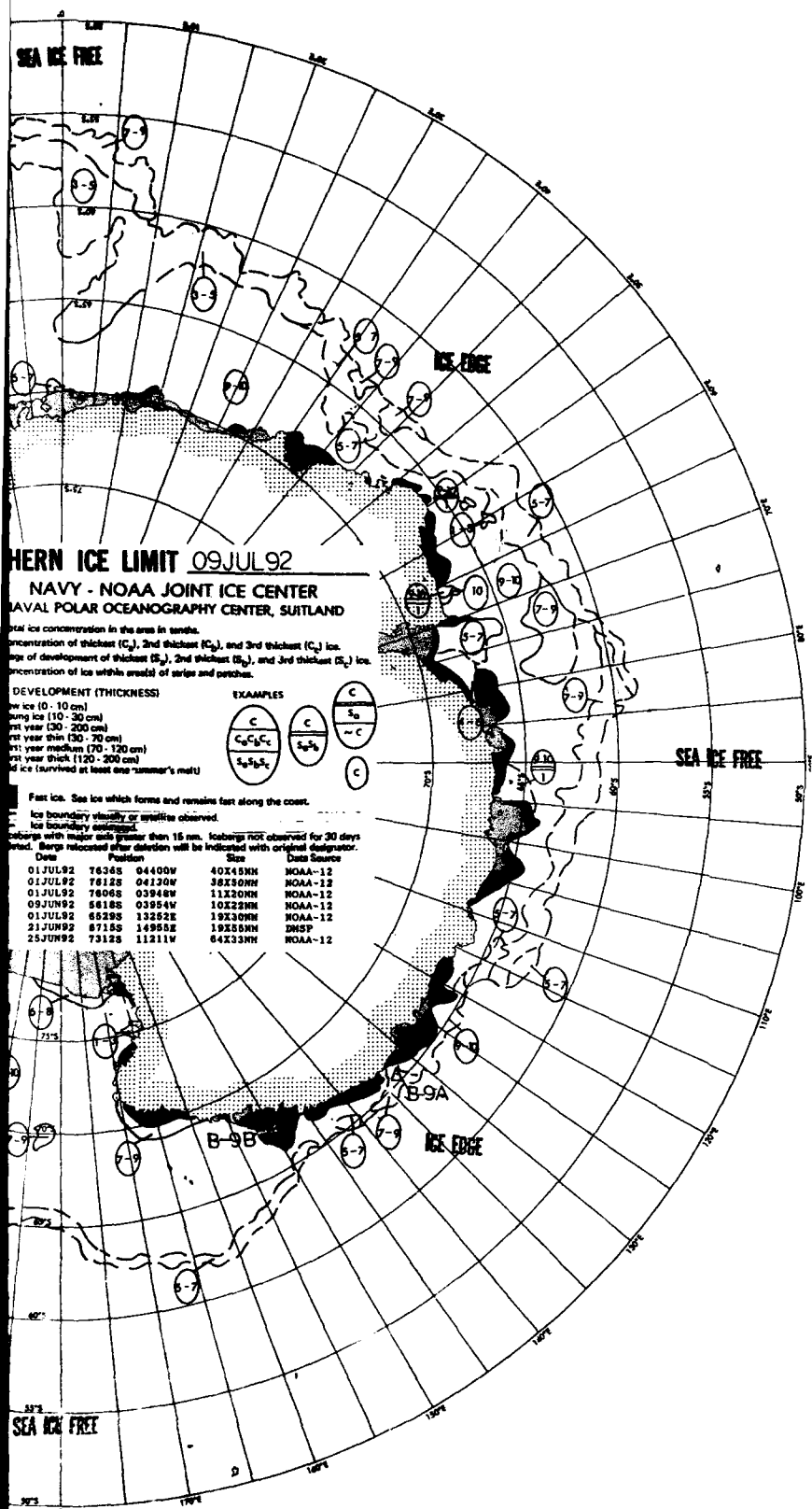








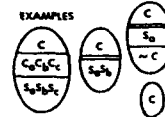




NORTHERN ICE LIMIT 09 JUL 92
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

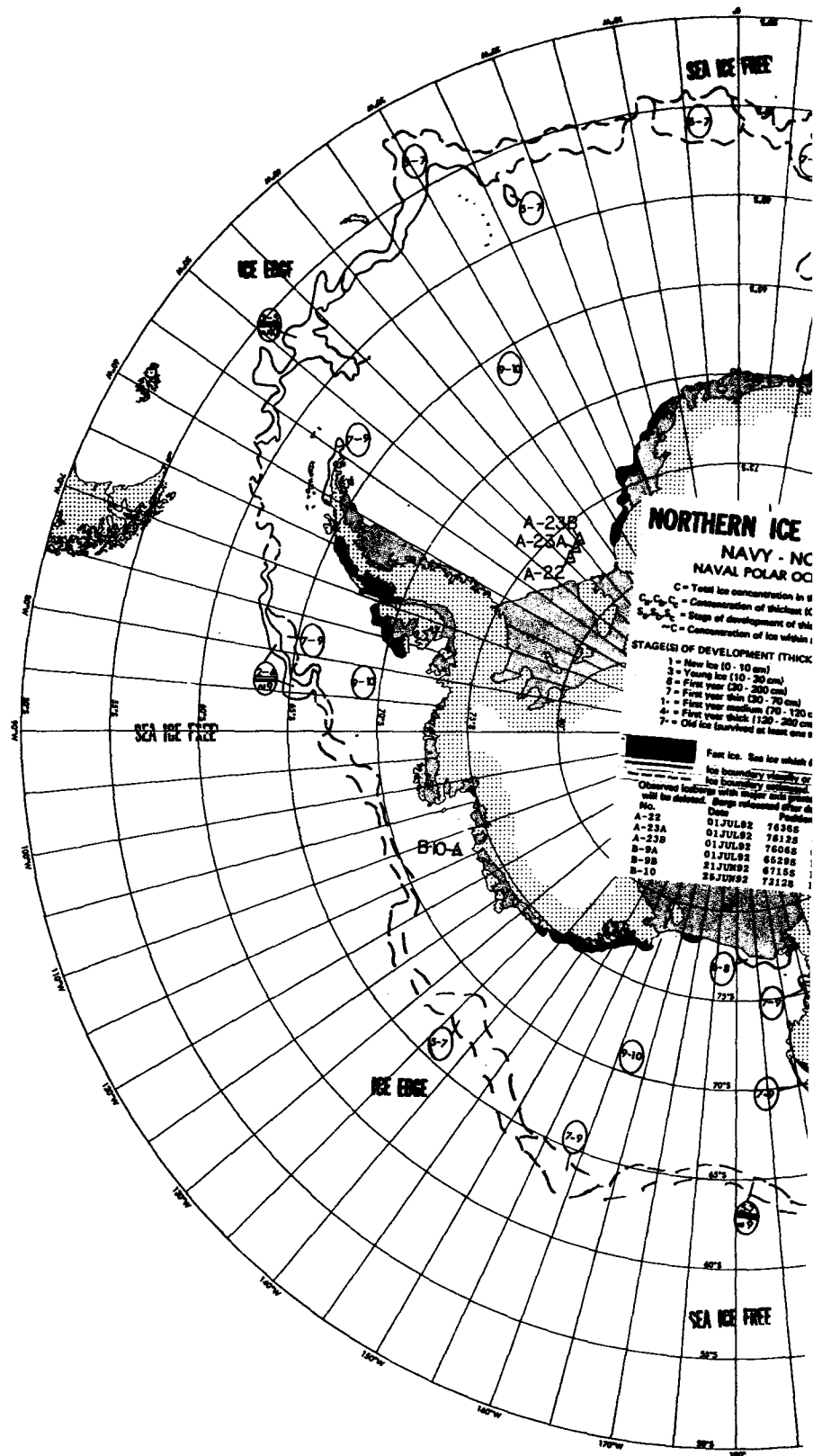
Ice concentration in the area in tenths.
 Concentration of thickest (C_1), 2nd thickest (C_2), and 3rd thickest (C_3) ice.
 Age of development of thickest (S_1), 2nd thickest (S_2), and 3rd thickest (S_3) ice.
 Concentration of ice within areas of strips and patches.

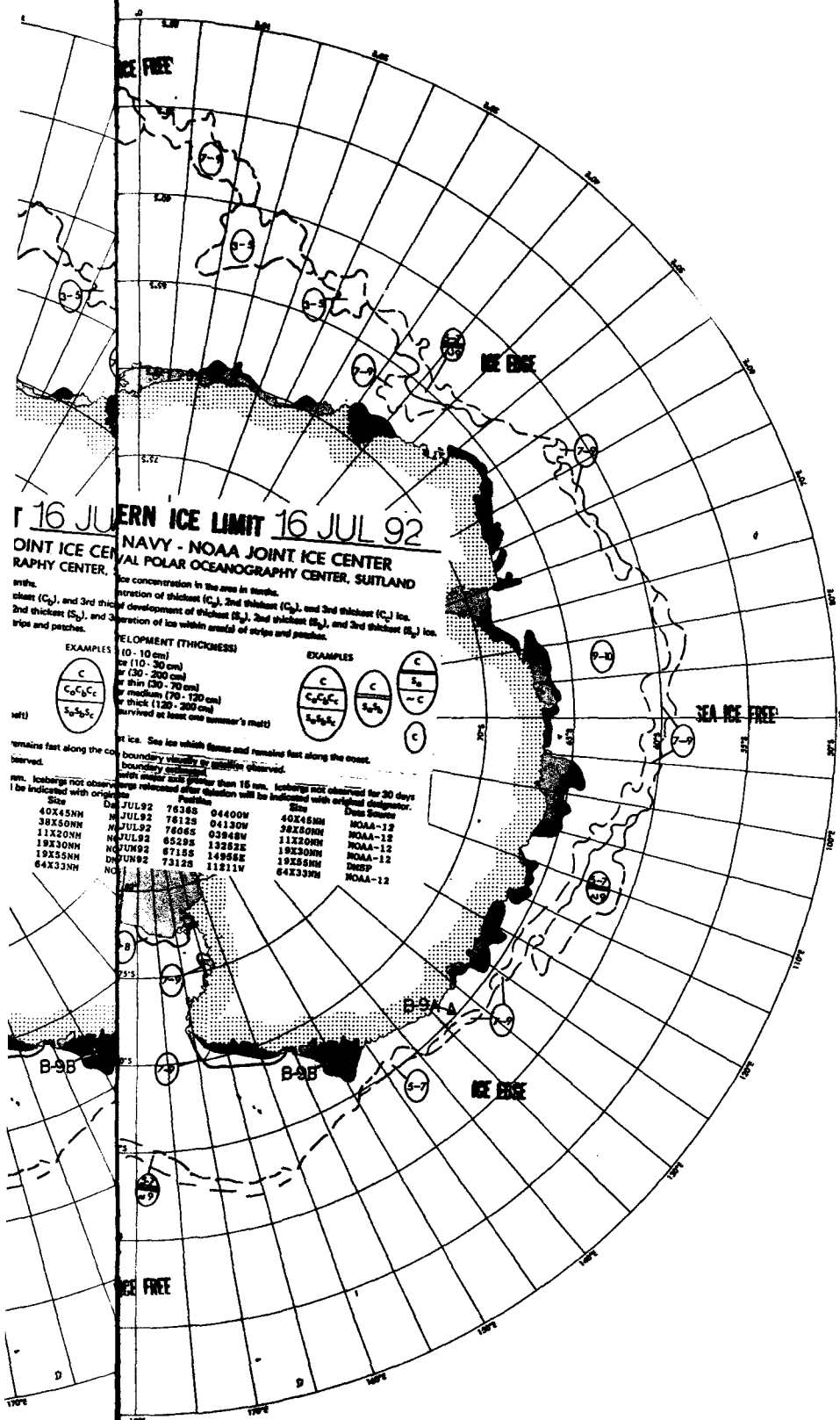
DEVELOPMENT (THICKNESS)
 New ice (0 - 10 cm)
 Young ice (10 - 30 cm)
 1st year (30 - 200 cm)
 1st year thin (30 - 70 cm)
 1st year medium (70 - 120 cm)
 1st year thick (120 - 200 cm)
 Old ice (survived at least one summer's melt)

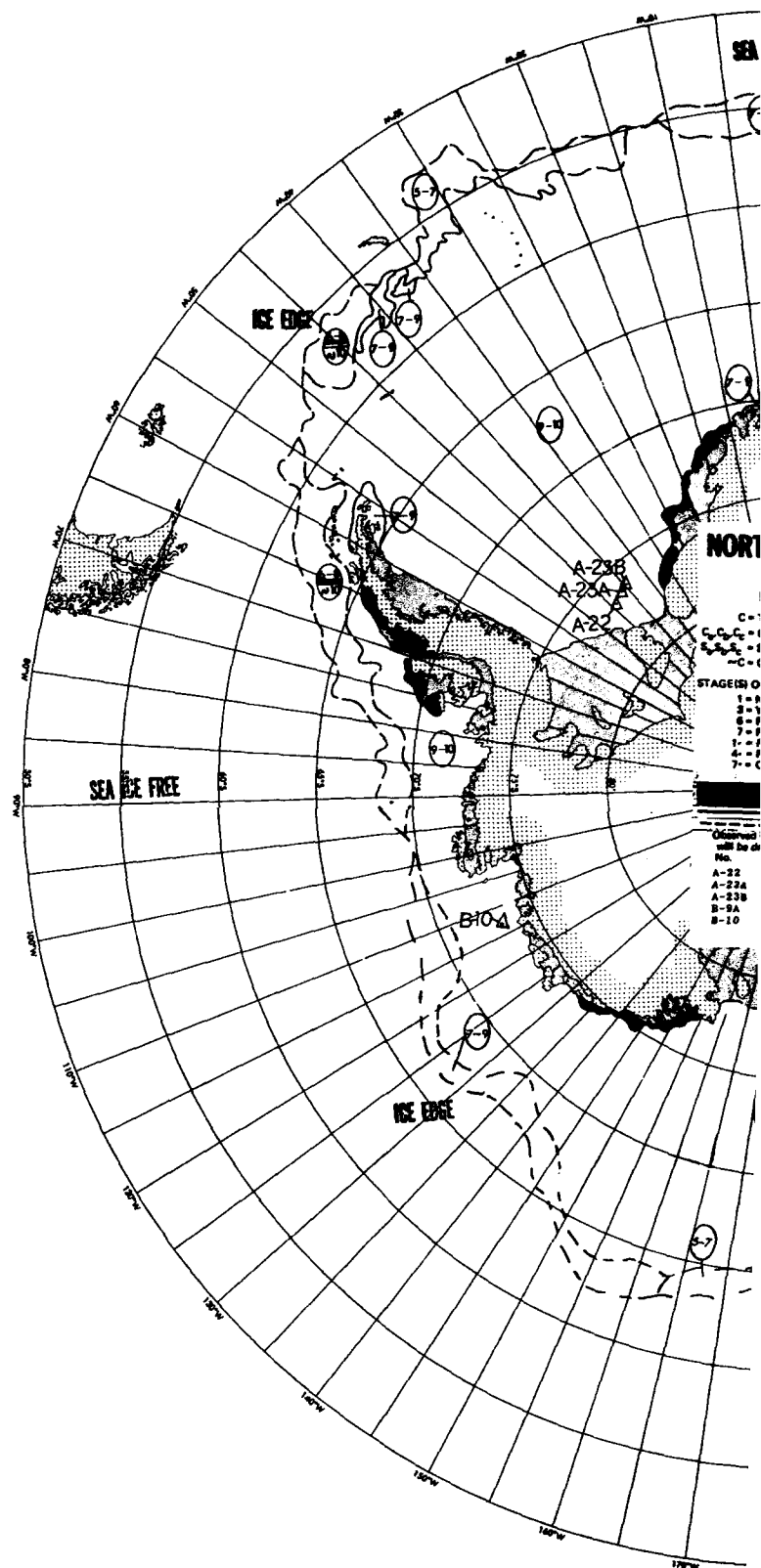


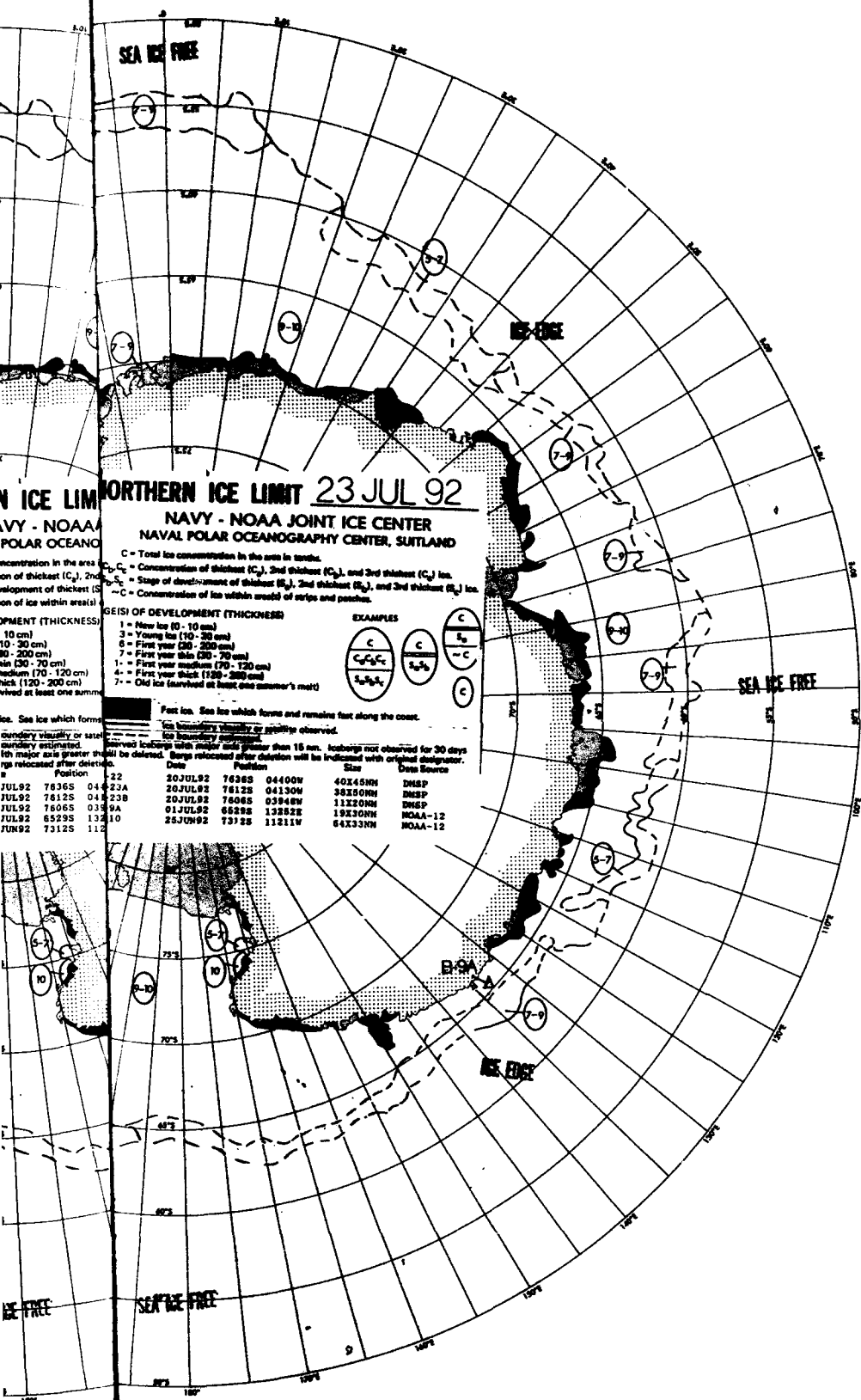
Fast ice. See ice which forms and remains fast along the coast.
Ice boundary visually or satellite observed.
Ice boundary estimated.
 Icebergs with major axis greater than 15 m. Icebergs not observed for 30 days marked. Berge released after deletion will be indicated with original designation.

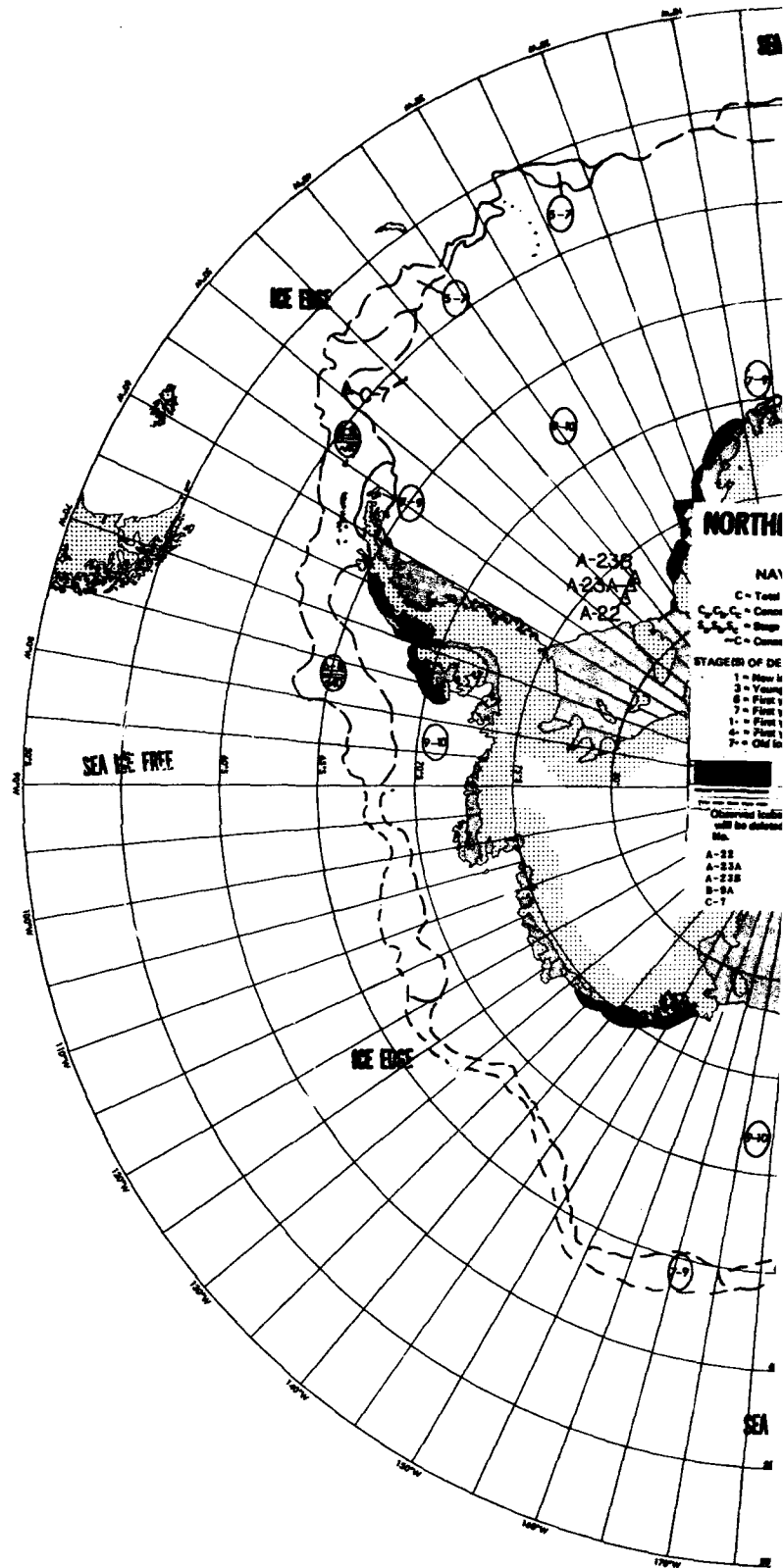
Date	Position	Size	Data Source
01 JUL 92	7638S 04400W	40X45NM	NOAA-12
01 JUL 92	7612S 04120W	38X50NM	NOAA-12
01 JUL 92	7606S 03948W	11X20NM	NOAA-12
09 JUL 92	6818S 03954W	10X22NM	NOAA-12
01 JUL 92	6529S 13252E	19X30NM	NOAA-12
21 JUN 92	8715S 14955E	19X55NM	DMSP
25 JUN 92	7318S 11211W	64X33NM	NOAA-12

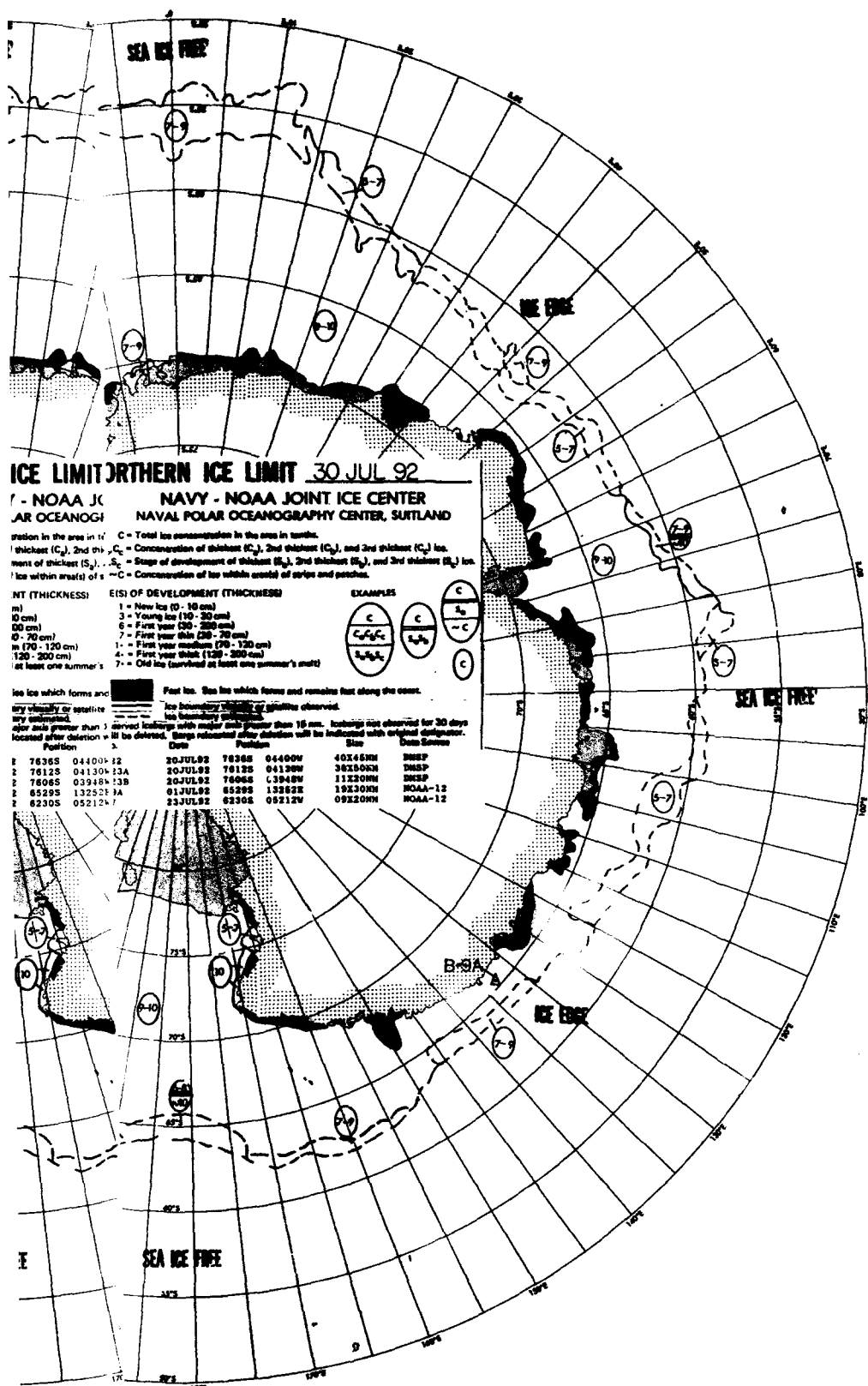


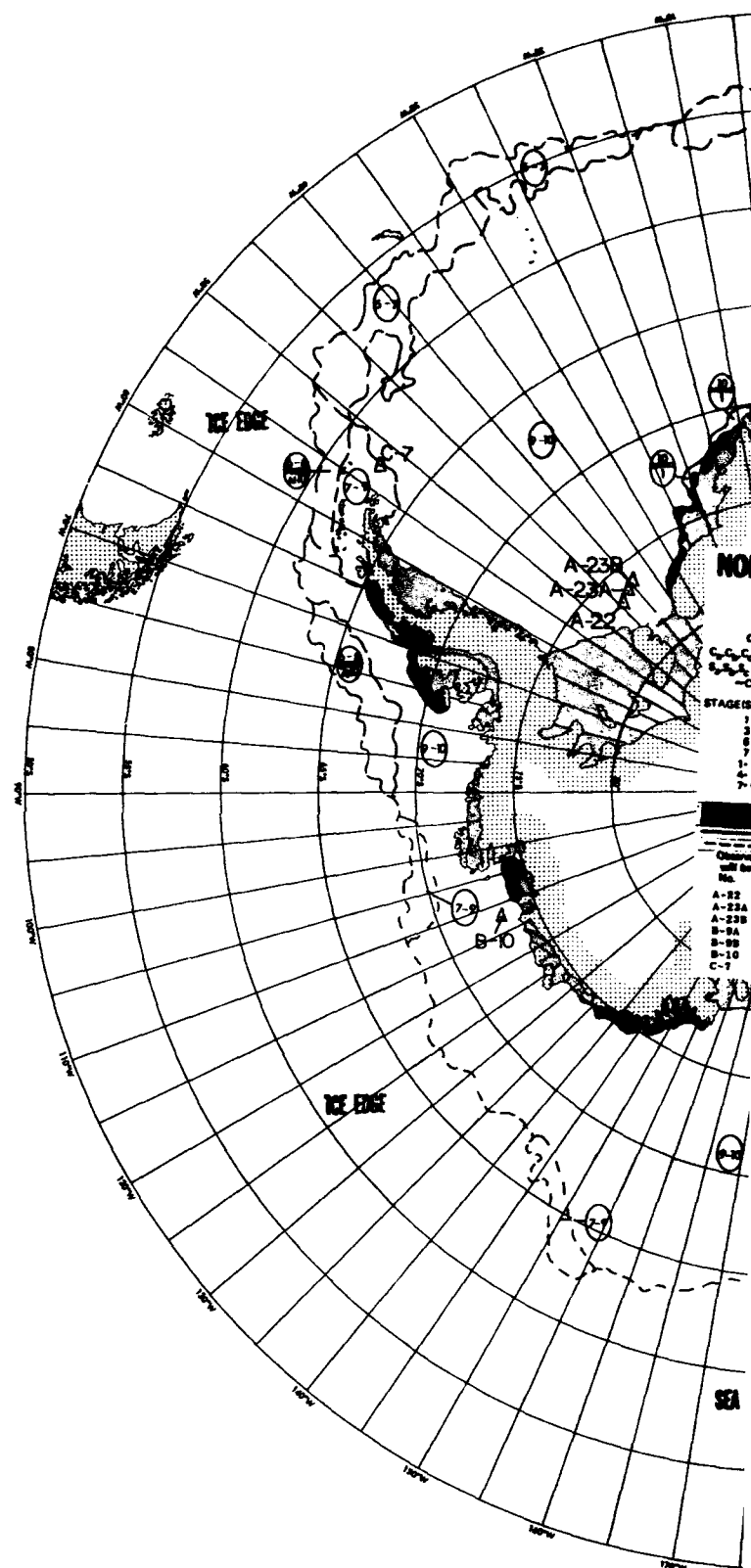


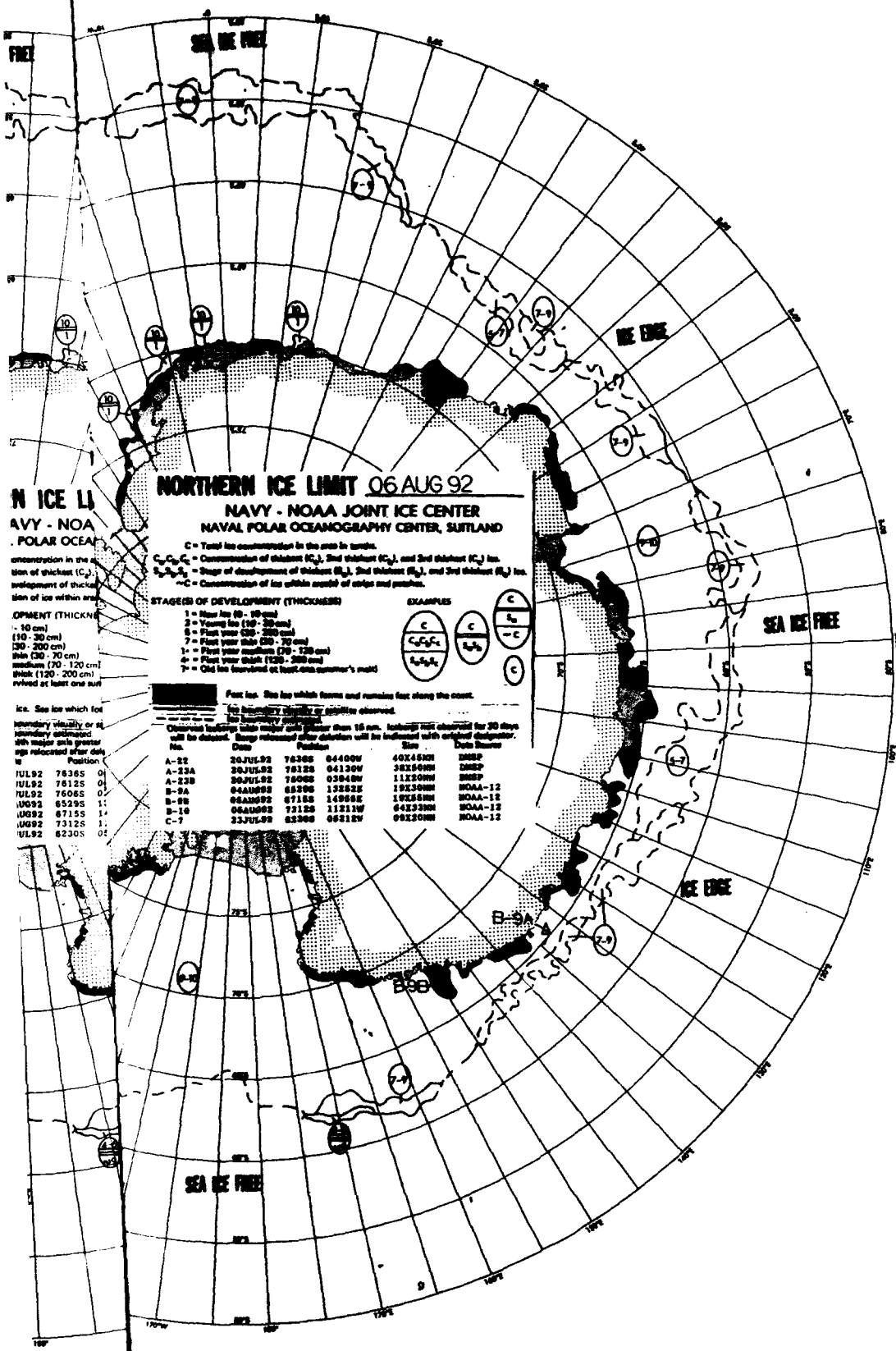












NORTHERN ICE LIMIT 06 AUG 92

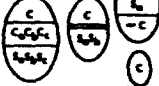
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

C = Total ice concentration in the area in tenths.
C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
T₁, T₂, T₃ = Stage of development of thickest (T₁), 2nd thickest (T₂), and 3rd thickest (T₃) ice.
A = Concentration of ice within specified of strips and patches.

STAGES OF DEVELOPMENT (THICKNESS)

- 1 = New ice (0 - 10 cm)
- 2 = Young ice (10 - 30 cm)
- 3 = First year ice (30 - 70 cm)
- 4 = First year ice (70 - 120 cm)
- 5 = First year ice (120 - 200 cm)
- 6 = First year ice (200 - 300 cm)
- 7 = Old ice (300 - 500 cm)

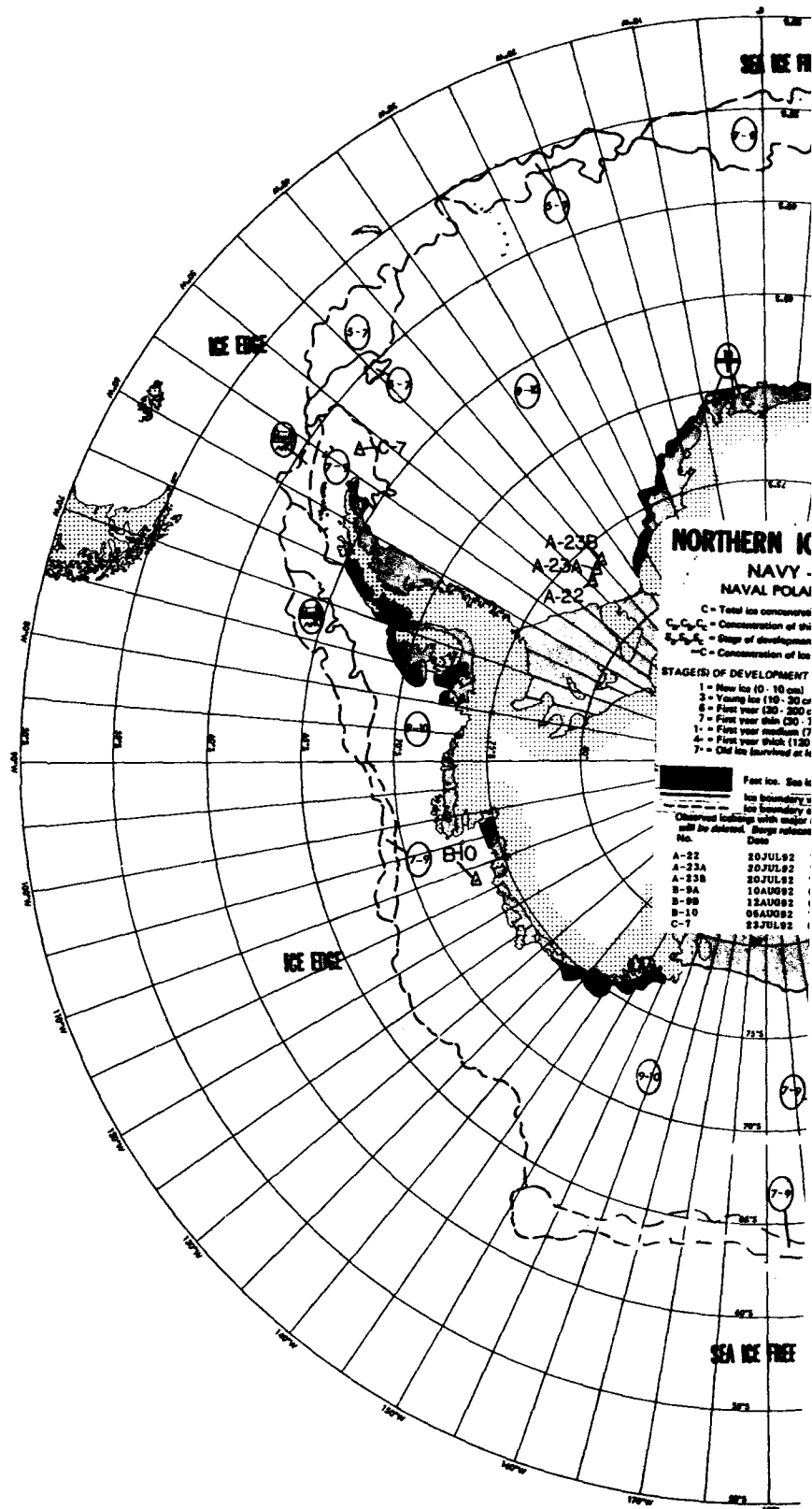
EXAMPLES

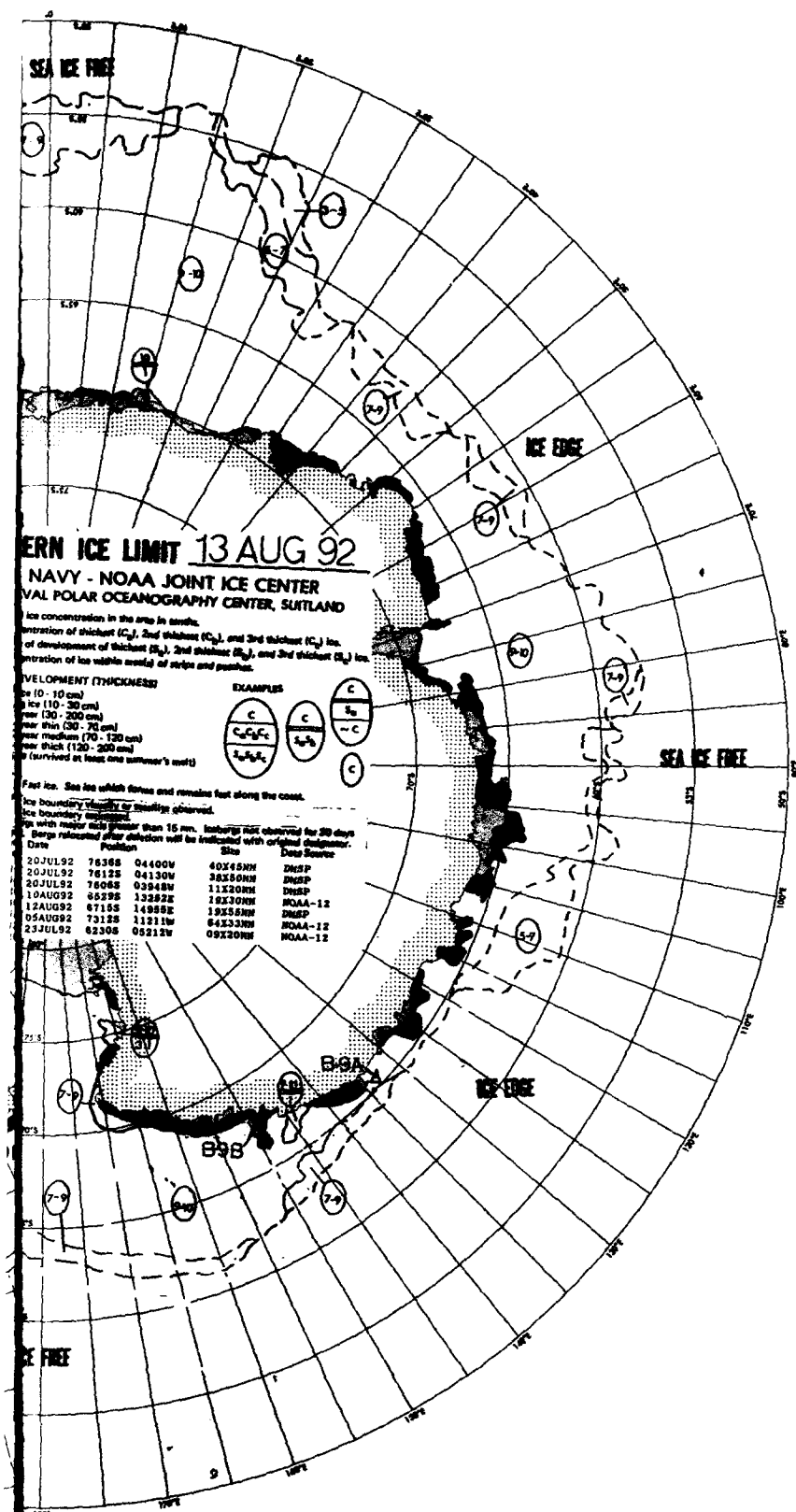


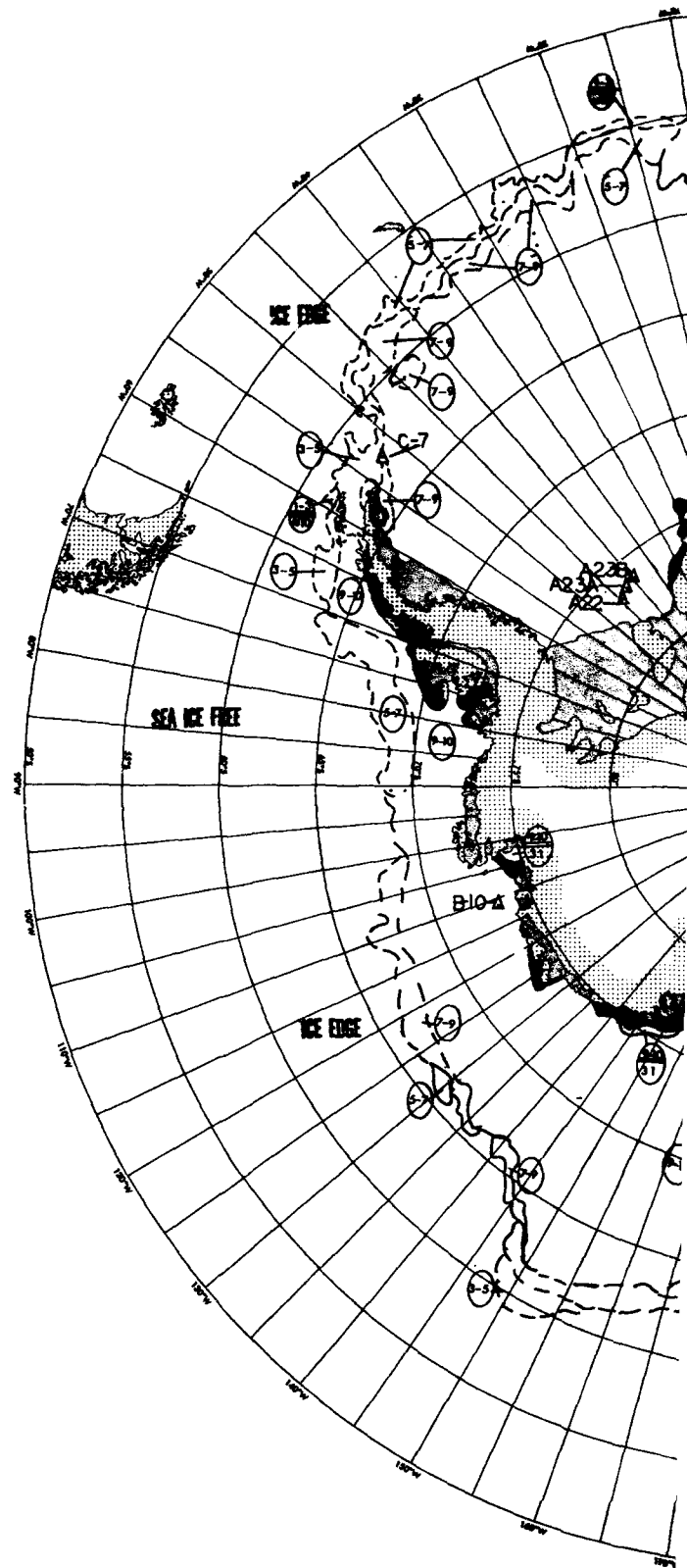
Ice Observations - See ice which forms and remains fast along the coast.
 Ice boundary - See ice which forms and remains fast along the coast.
 Ice thickness - See ice which forms and remains fast along the coast.
 Ice concentration - See ice which forms and remains fast along the coast.

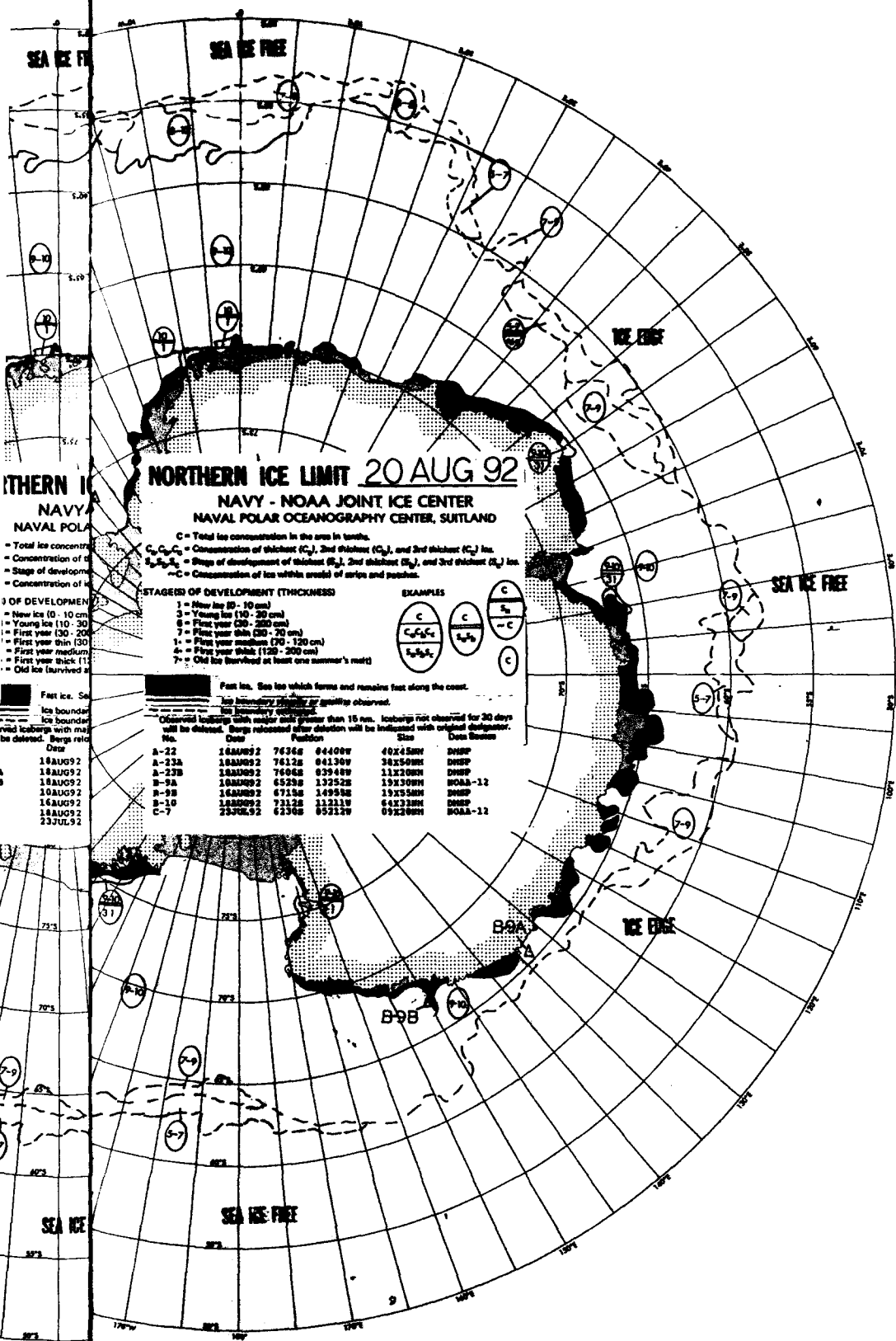
No.	Date	Position	Size	Data Source
A-22	20 JUL 92	7630S 04400W	40X40NM	DESP
A-23A	20 JUL 92	7630S 04130W	10X50NM	DESP
A-23B	20 JUL 92	7600S 03940W	11X50NM	DESP
B-9A	04 AUG 92	6830S 13252E	10X30NM	NOAA-12
B-9B	04 AUG 92	6715S 14955E	10X30NM	NOAA-12
B-10	04 AUG 92	7215S 11213W	44X30NM	NOAA-12
C-7	23 JUL 92	6830S 08212W	09X10NM	NOAA-12

Ice Observations - See ice which forms and remains fast along the coast.
 Ice boundary - See ice which forms and remains fast along the coast.
 Ice thickness - See ice which forms and remains fast along the coast.
 Ice concentration - See ice which forms and remains fast along the coast.









NORTHERN ICE LIMIT 20 AUG 92

NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUITLAND

C = Total ice concentration in the area in tenths.
C₁, C₂, C₃ = Concentration of thickest (C₁), 2nd thickest (C₂), and 3rd thickest (C₃) ice.
S₁, S₂, S₃ = Stages of development of thickest (S₁), 2nd thickest (S₂), and 3rd thickest (S₃) ice.
-C = Concentration of ice within circle of circle and parallel.

STAGES OF DEVELOPMENT (THICKNESS)

- 1 = New ice (10 - 10 cm)
- 2 = Young ice (10 - 20 cm)
- 3 = First year (20 - 30 cm)
- 4 = First year thin (30 - 40 cm)
- 5 = First year medium (40 - 50 cm)
- 6 = First year thick (50 - 60 cm)
- 7 = Old ice (survived at least one summer's melt)

EXAMPLES

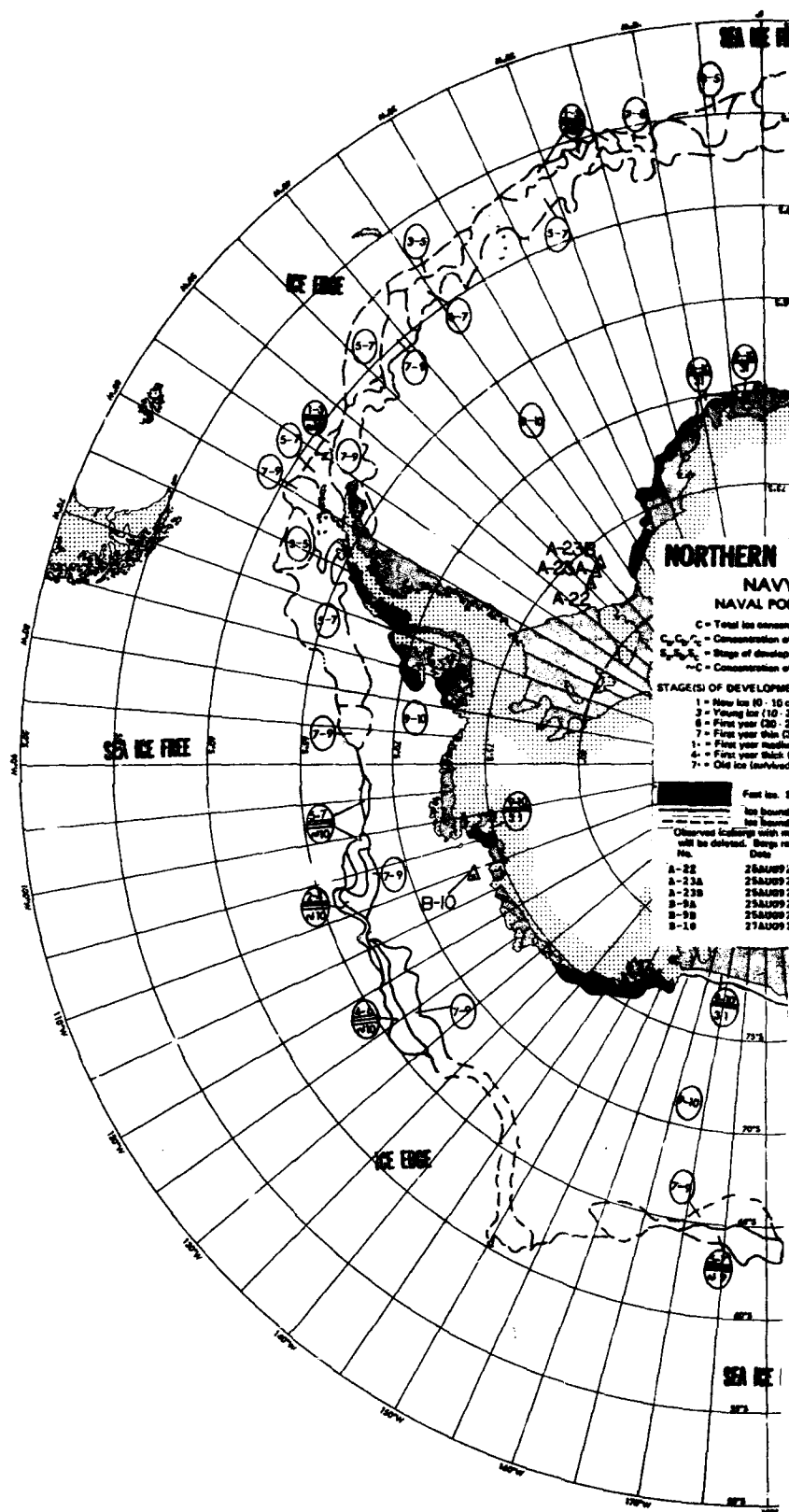


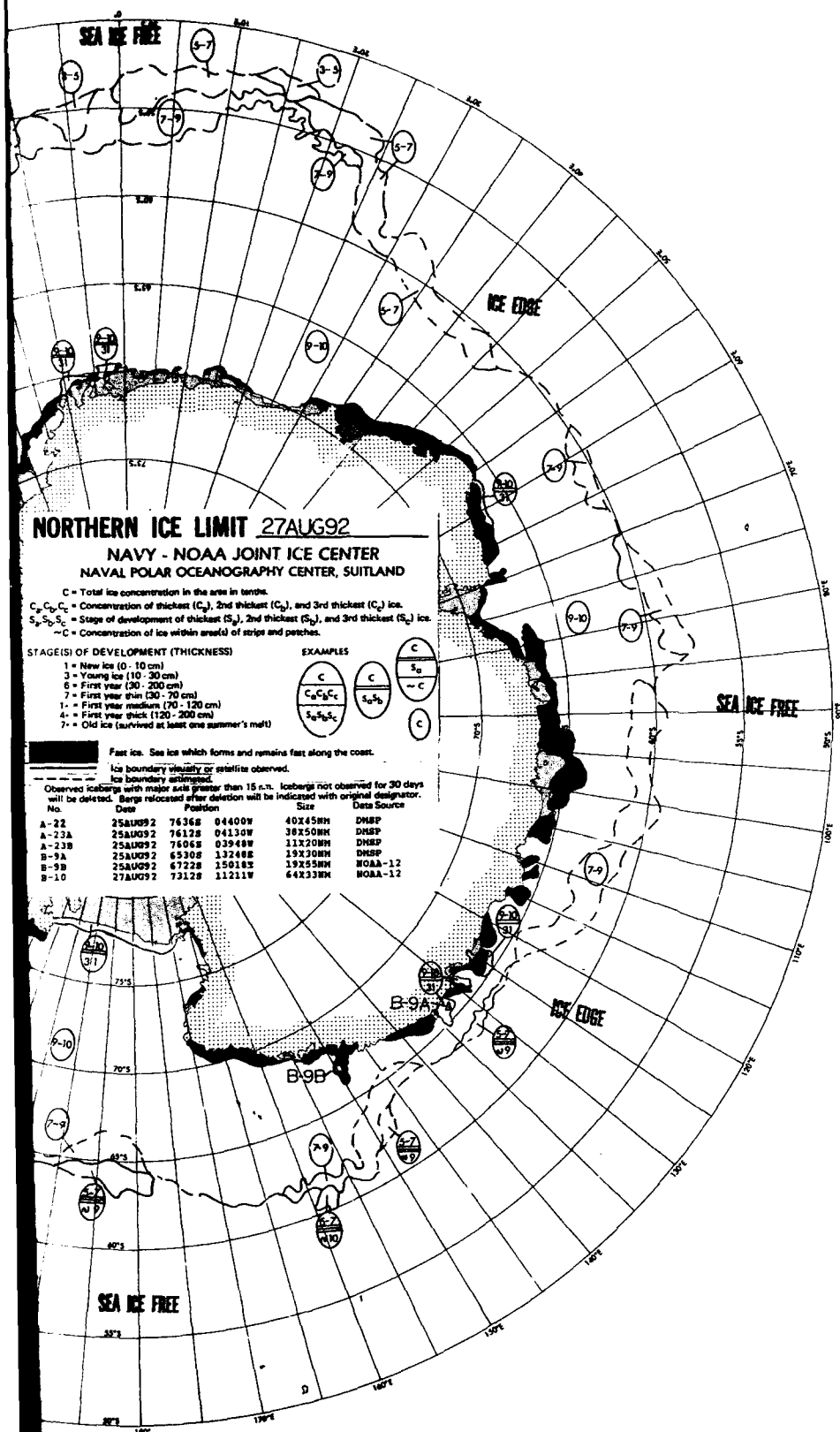
Fast ice. See ice which forms and remains fast along the coast.

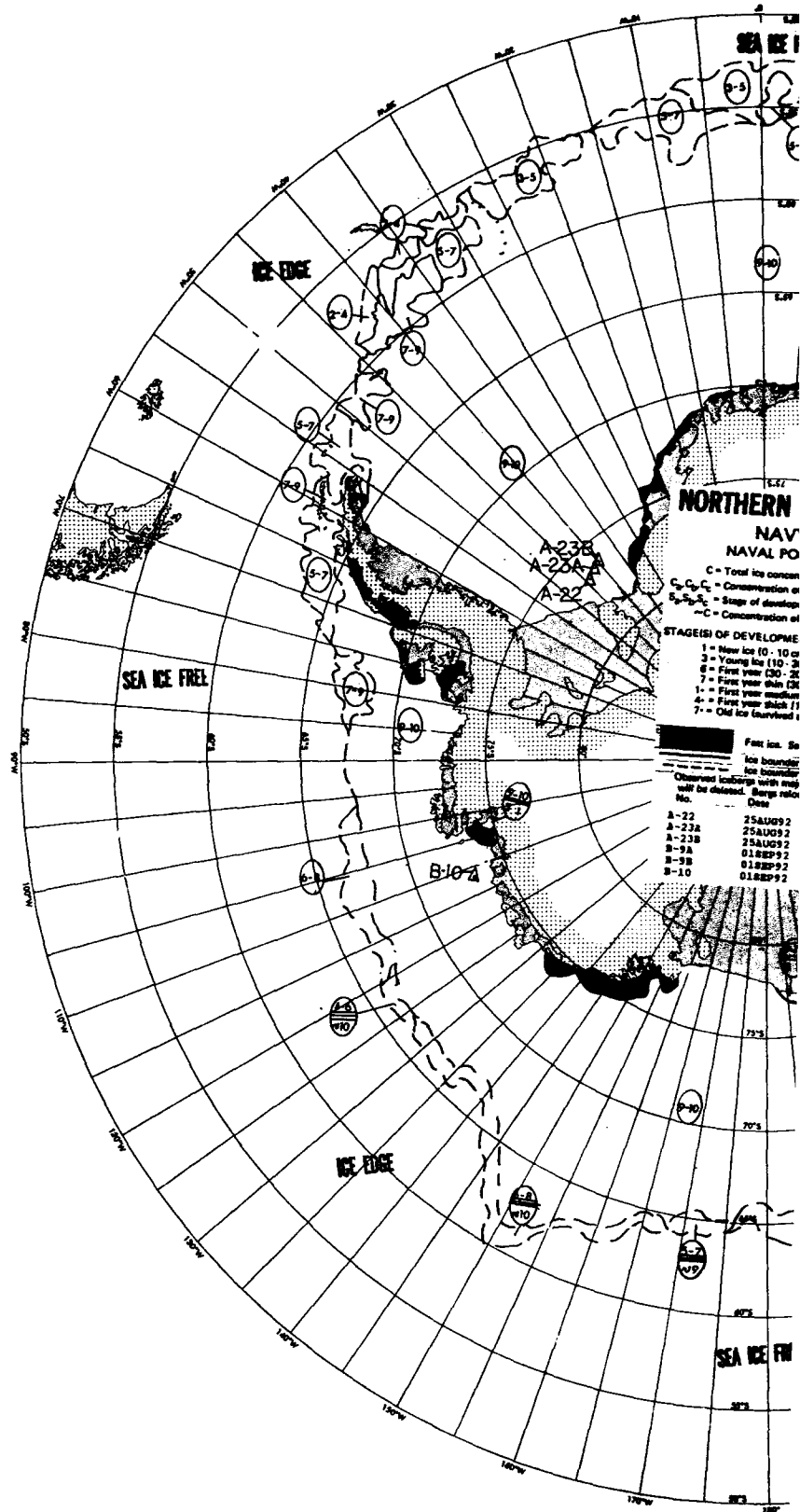
Ice boundary. Boundary of ice observed.

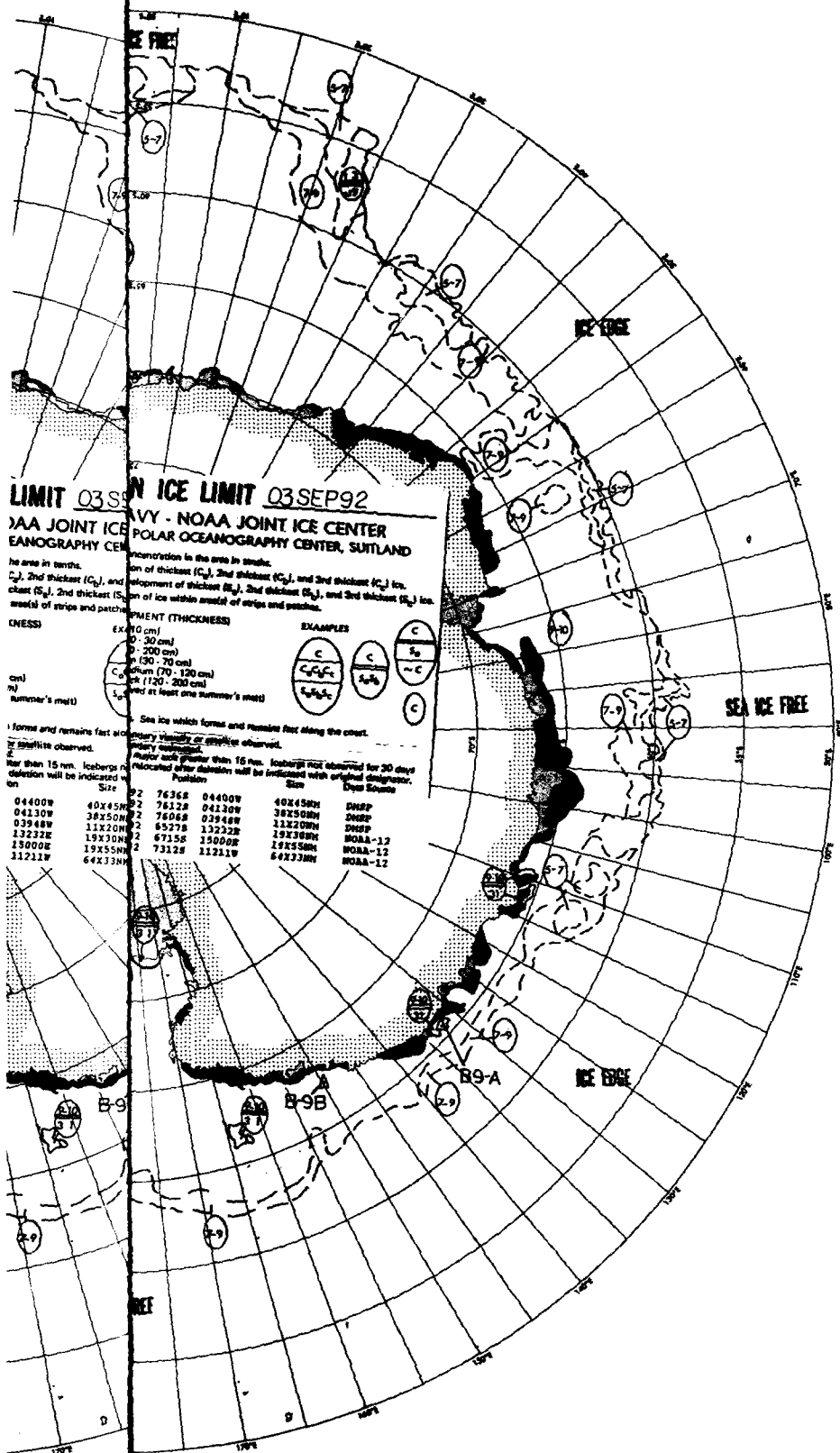
Observed icebergs with major dimension greater than 15 m. Icebergs not observed for 30 days will be deleted. Berge released after deletion will be indicated with original designation.

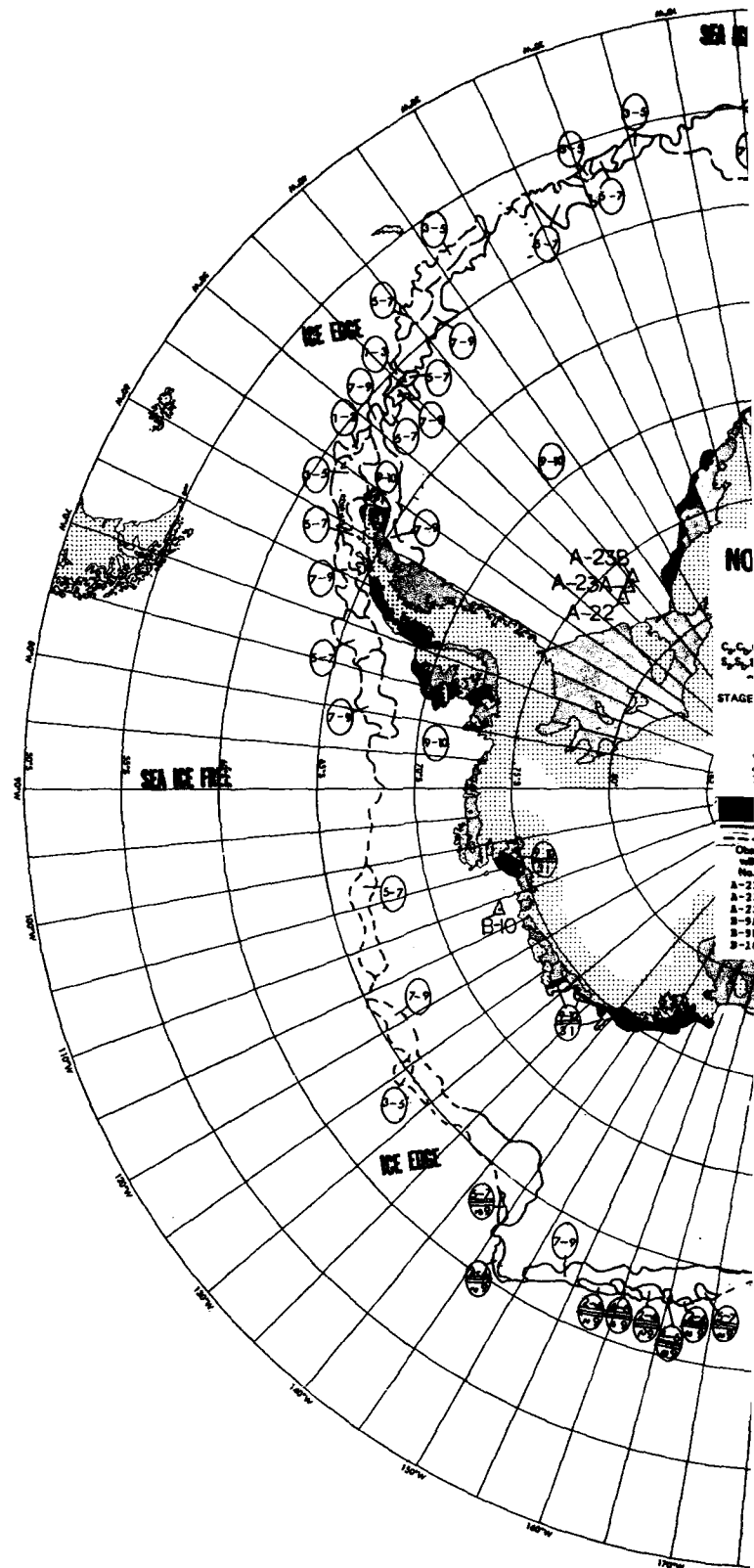
No.	Date	Position	Size	Days Observed
A-22	18AUG92	76246 64400W	40x45NM	DNBP
A-23a	18AUG92	76126 64130W	30x50NM	DNBP
A-23b	18AUG92	76046 63940W	11x20NM	DNBP
B-9A	18AUG92	65236 13252E	19x30NM	NOAA-12
B-9B	18AUG92	67156 14958E	19x55NM	DNBP
B-10	18AUG92	72126 11221W	64x33NM	DNBP
C-7	23JUL92	63346 95313W	69x26NM	NOAA-12

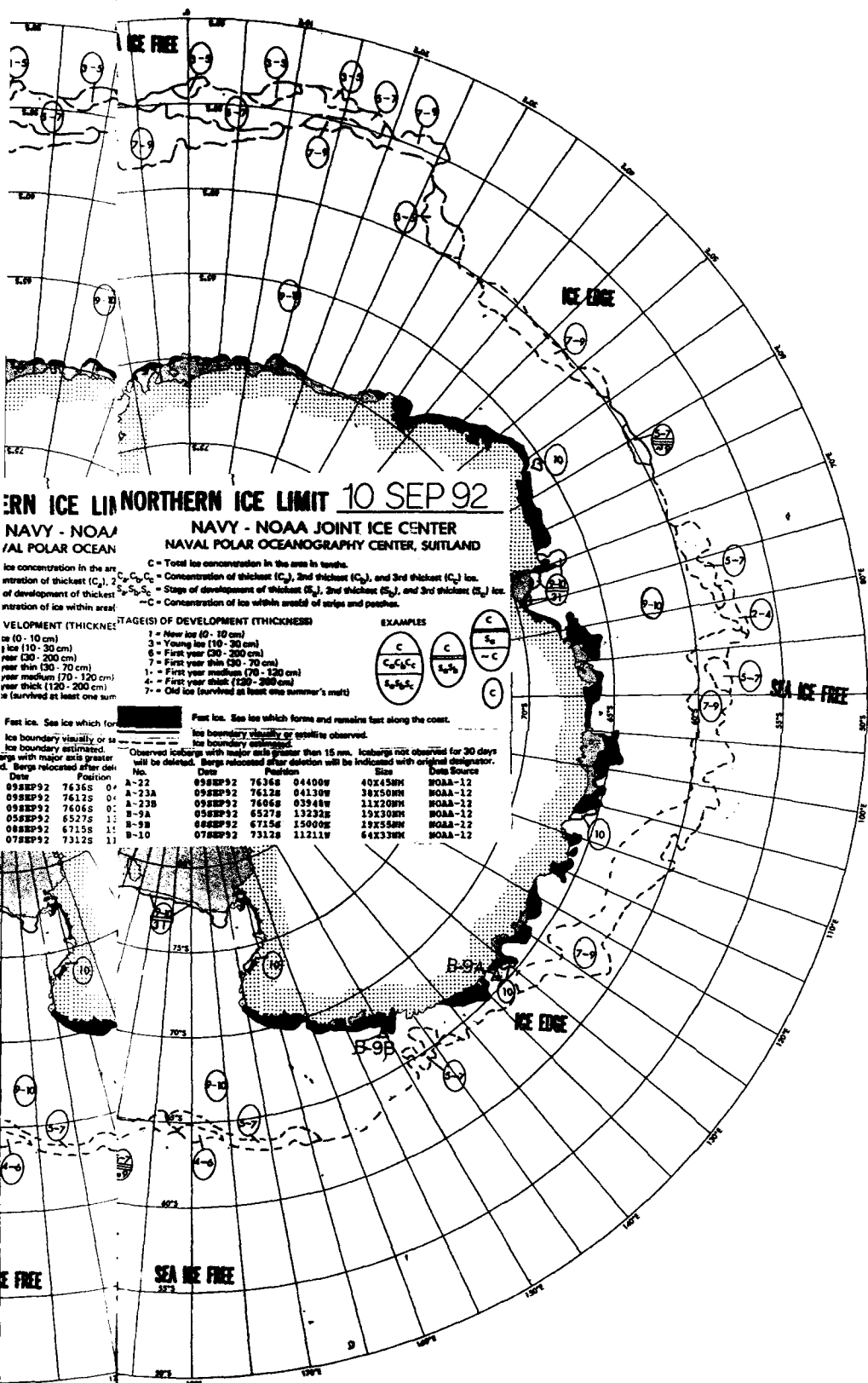


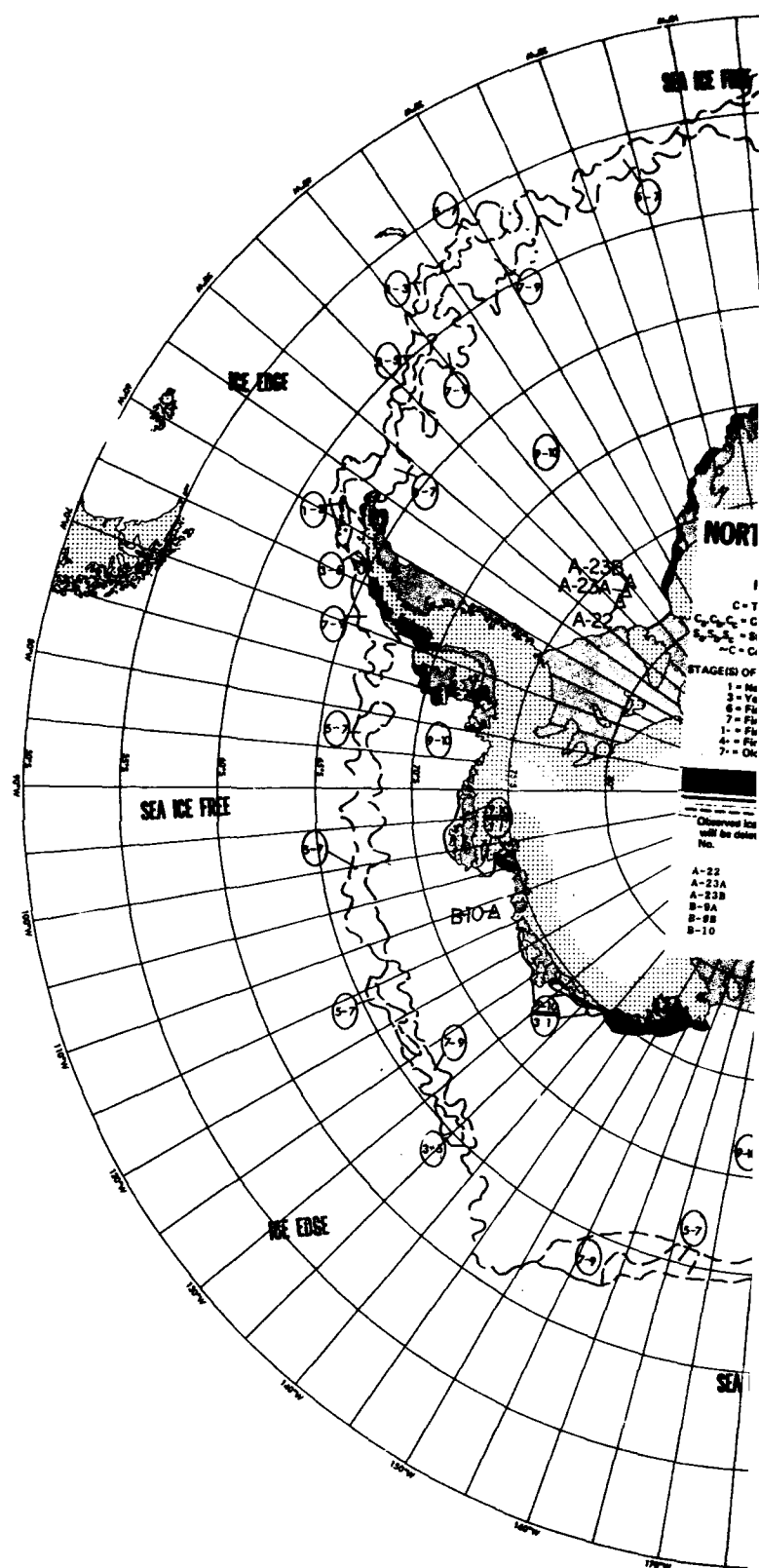


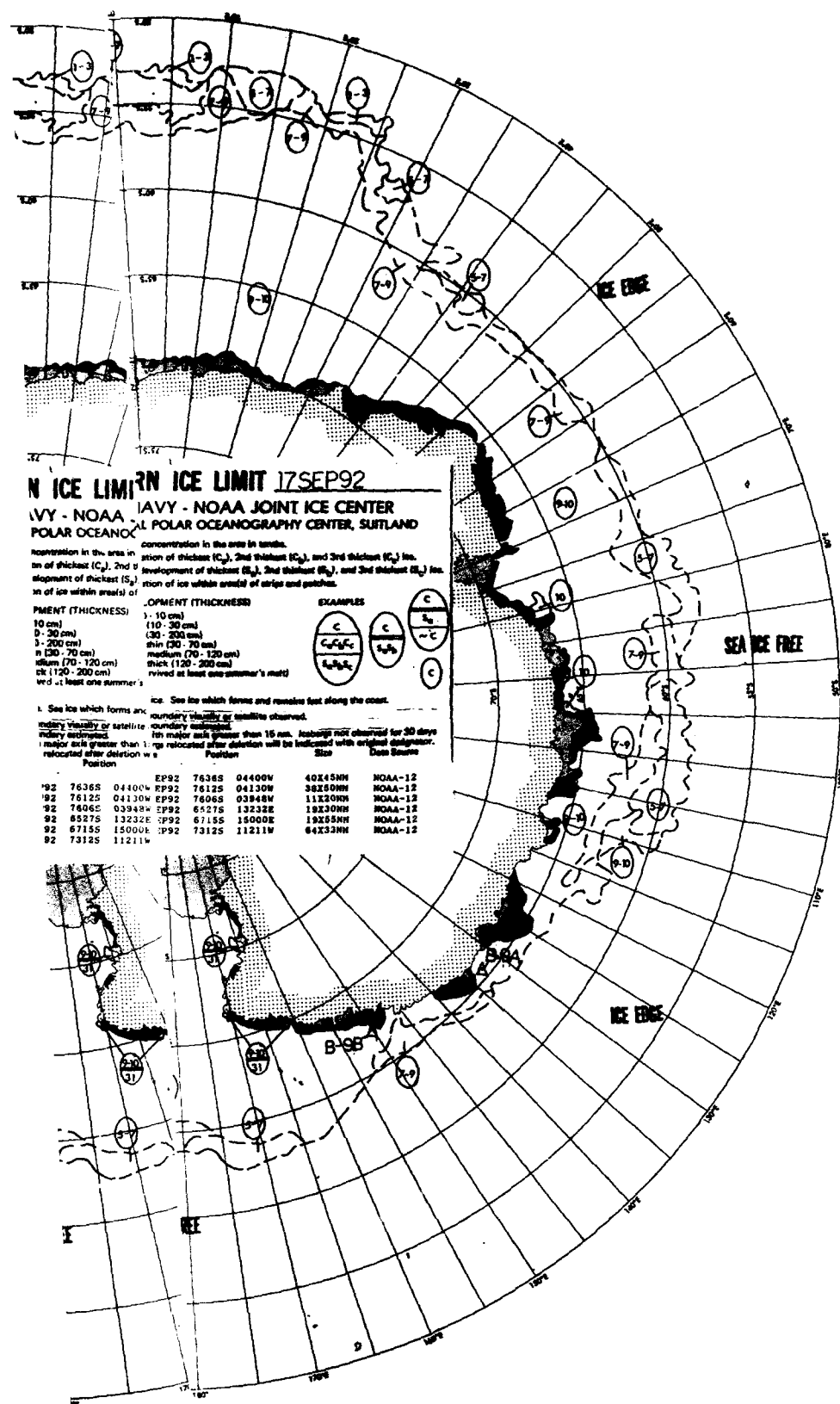


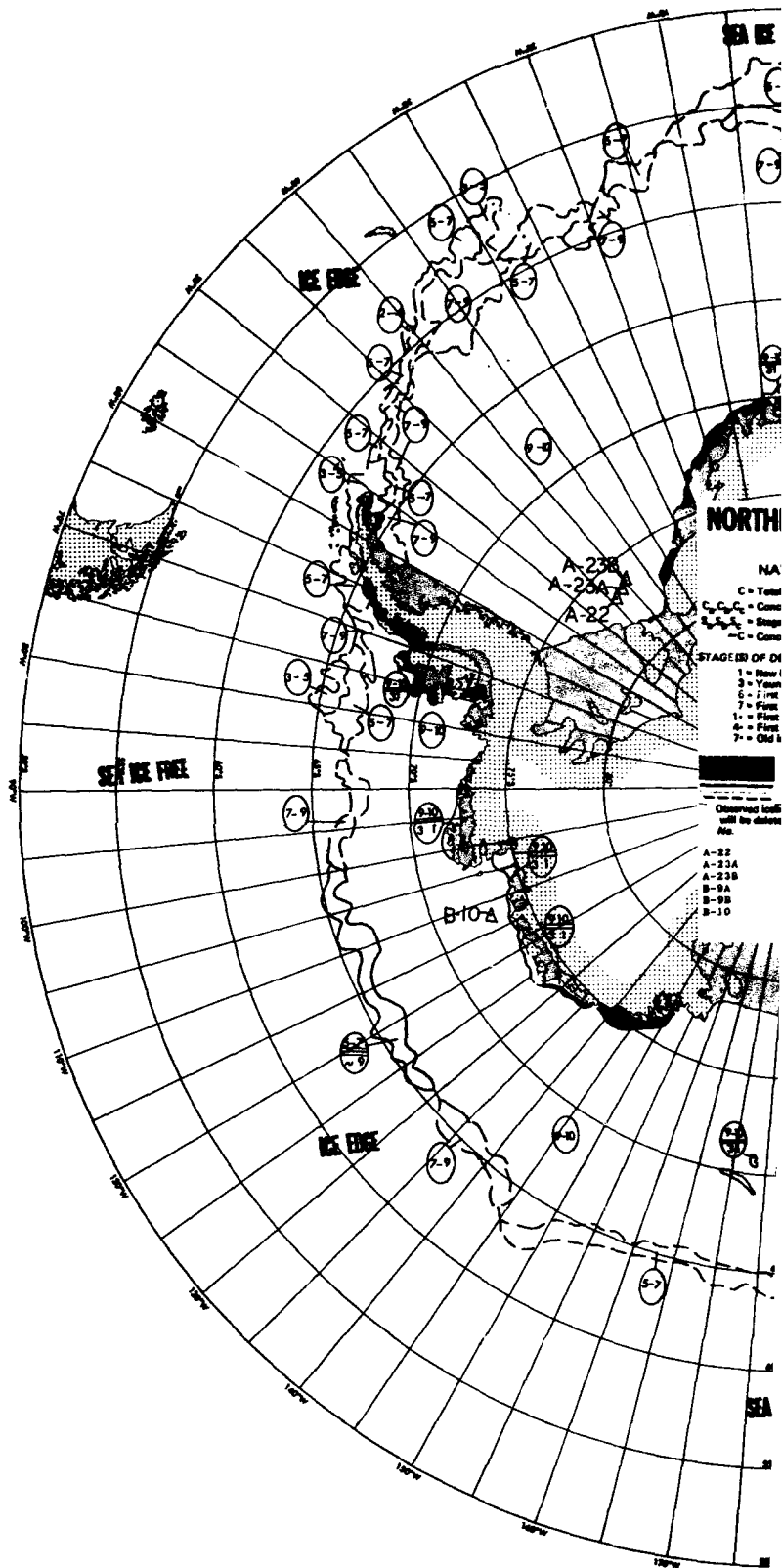


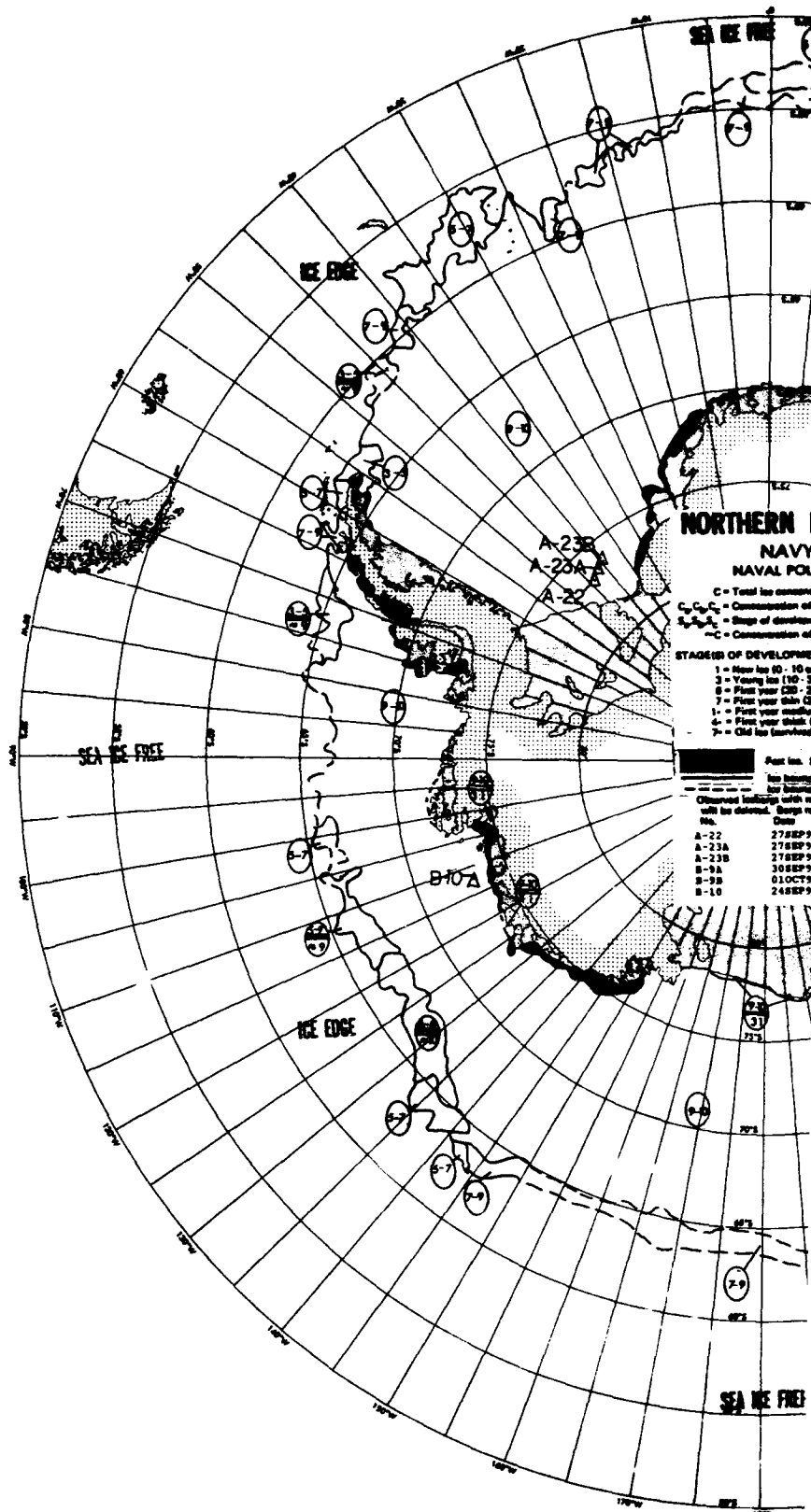


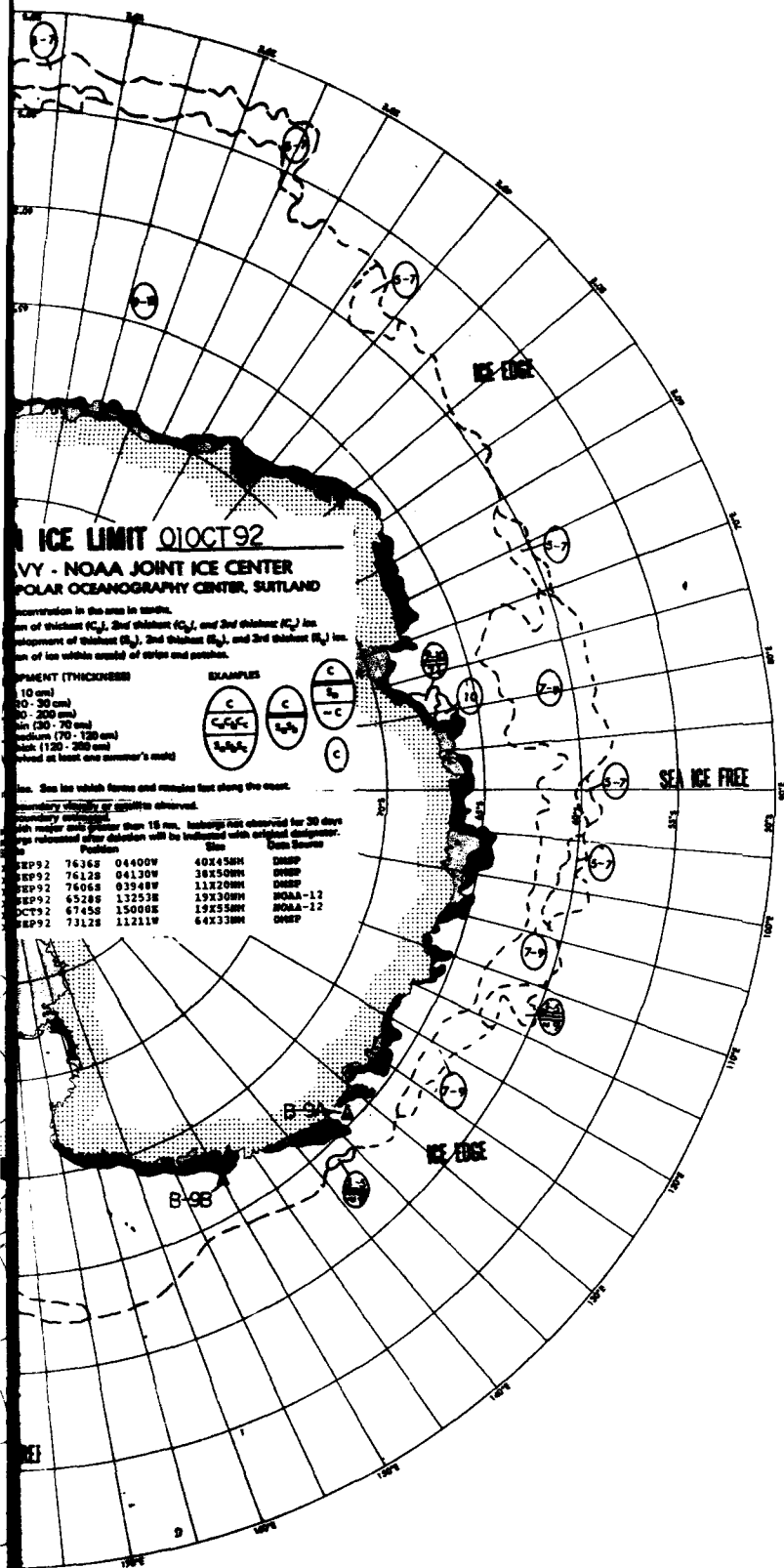


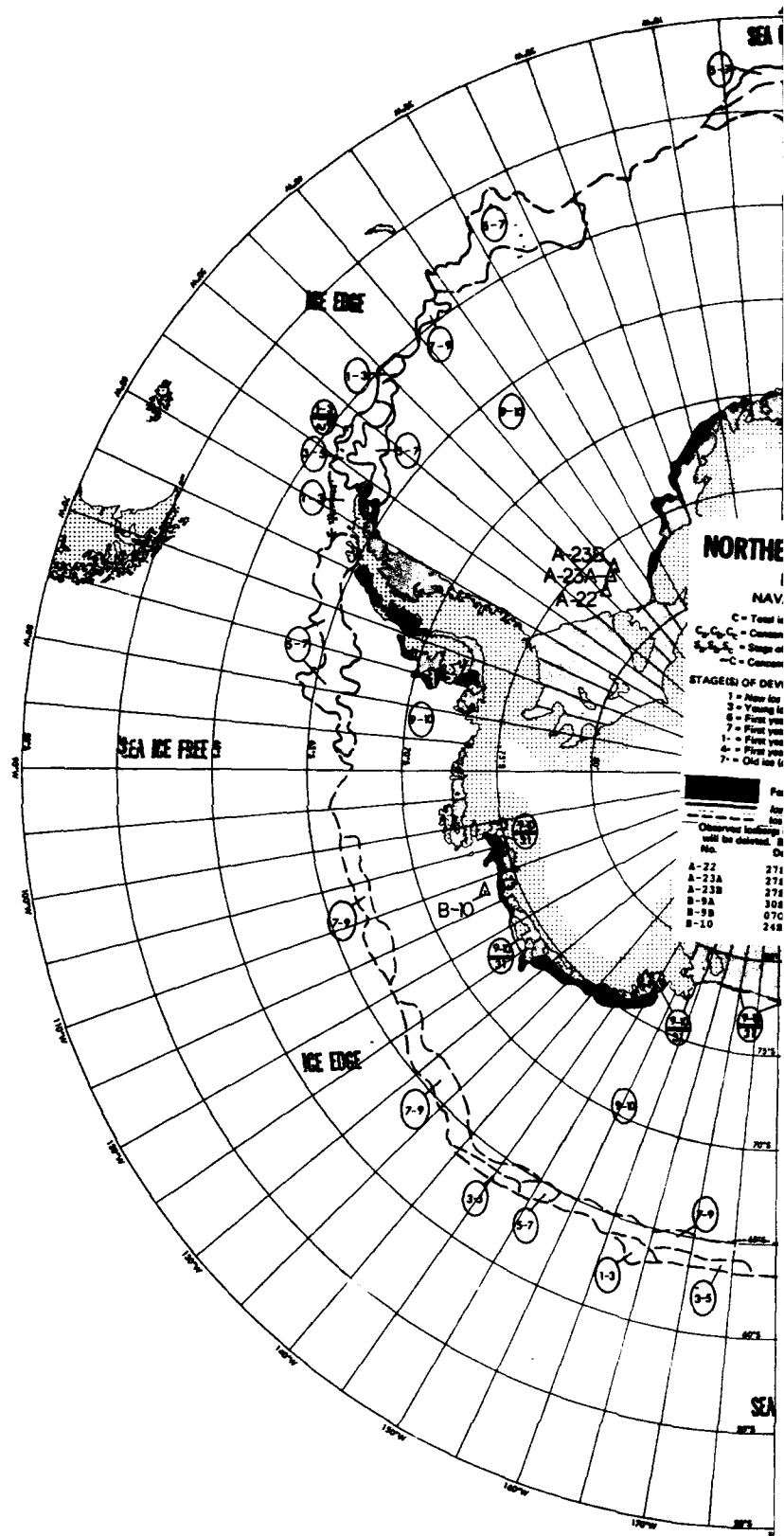


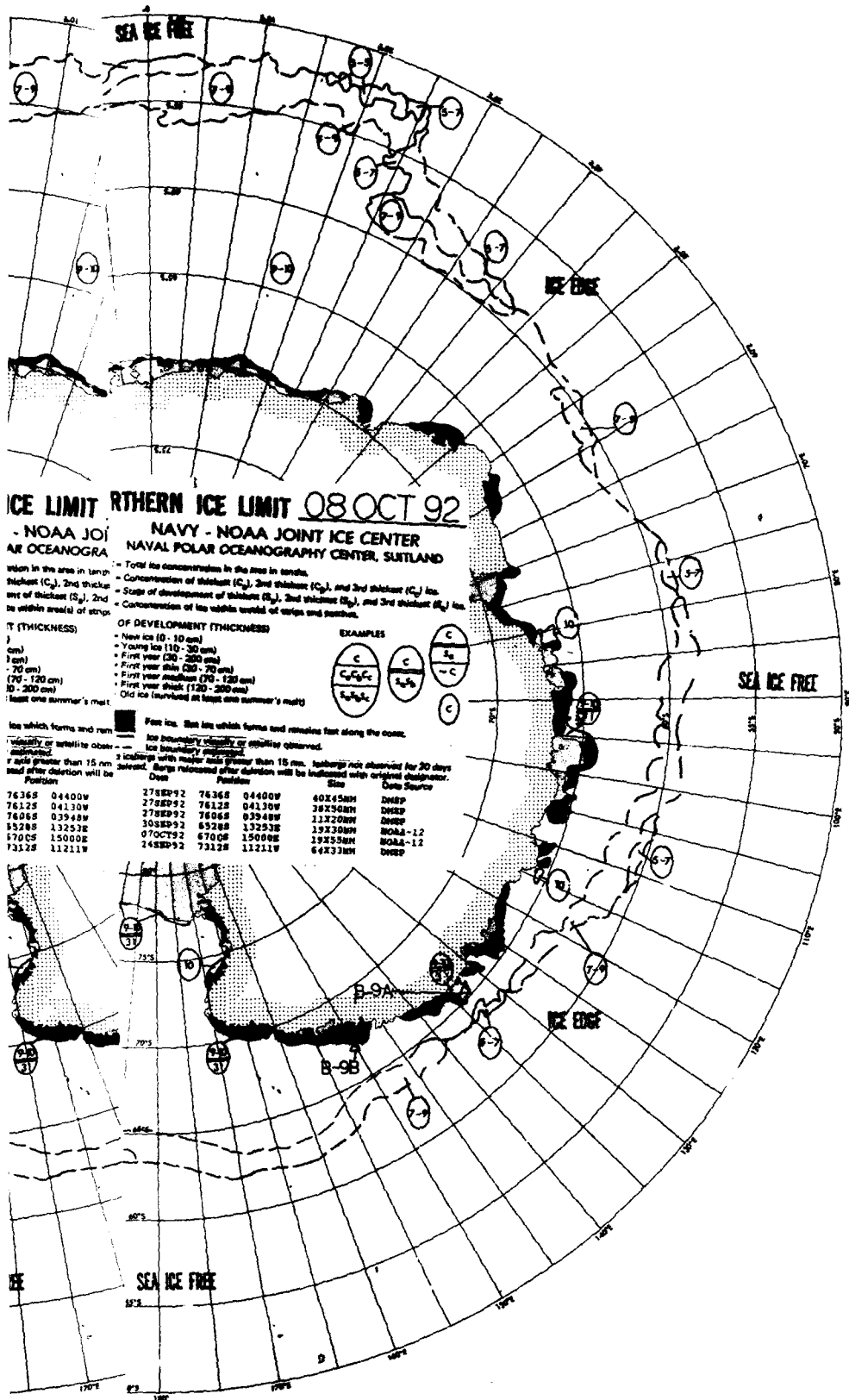


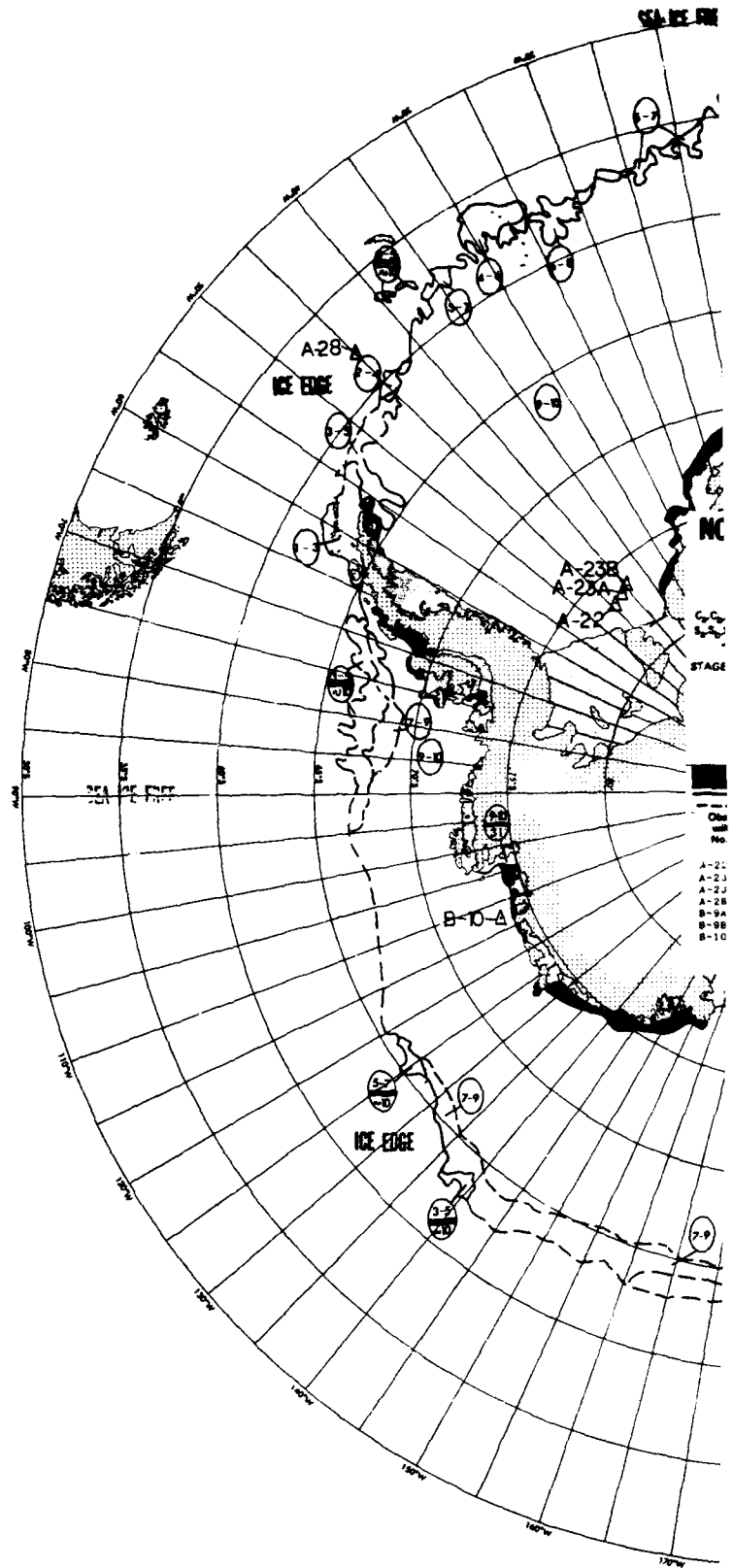


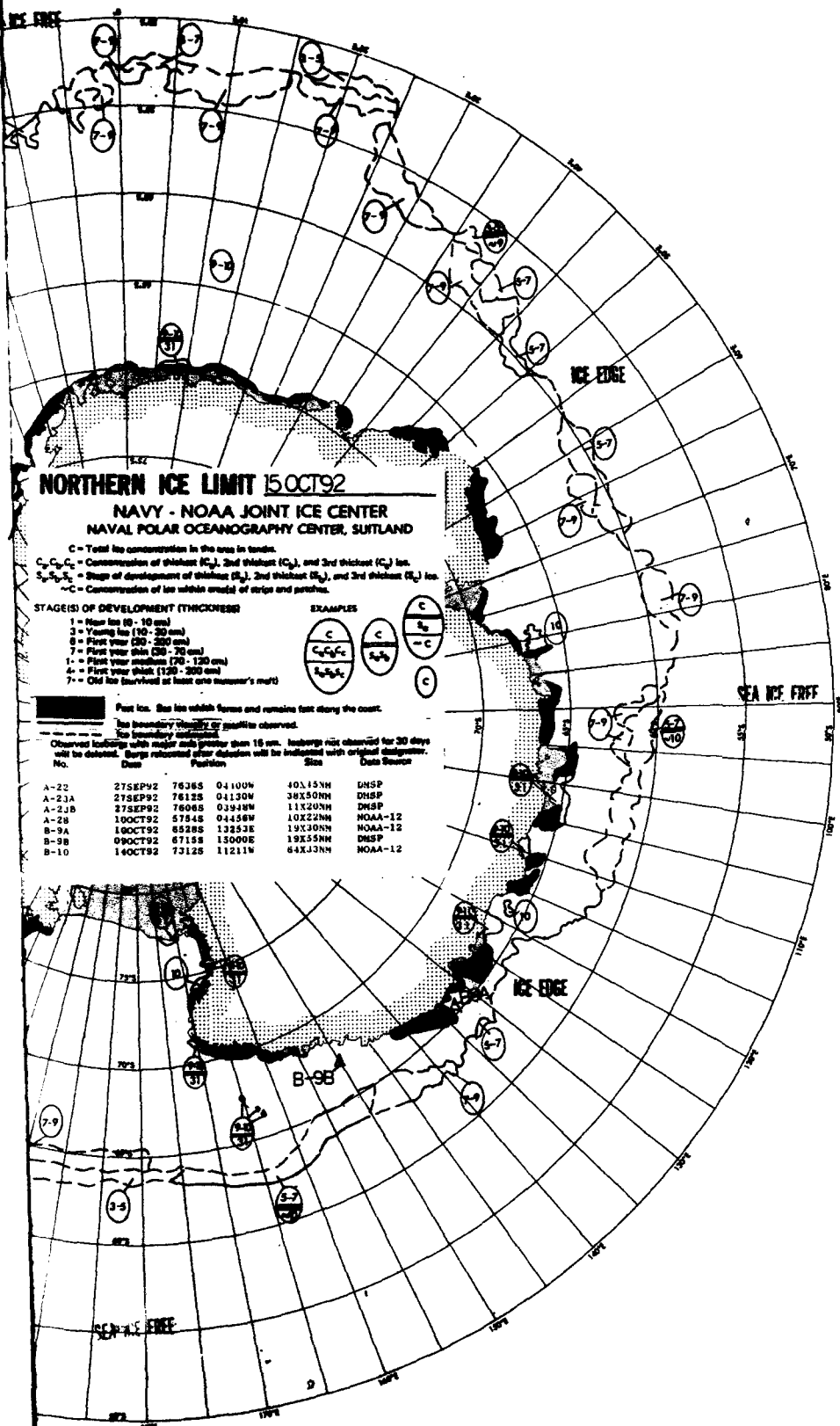


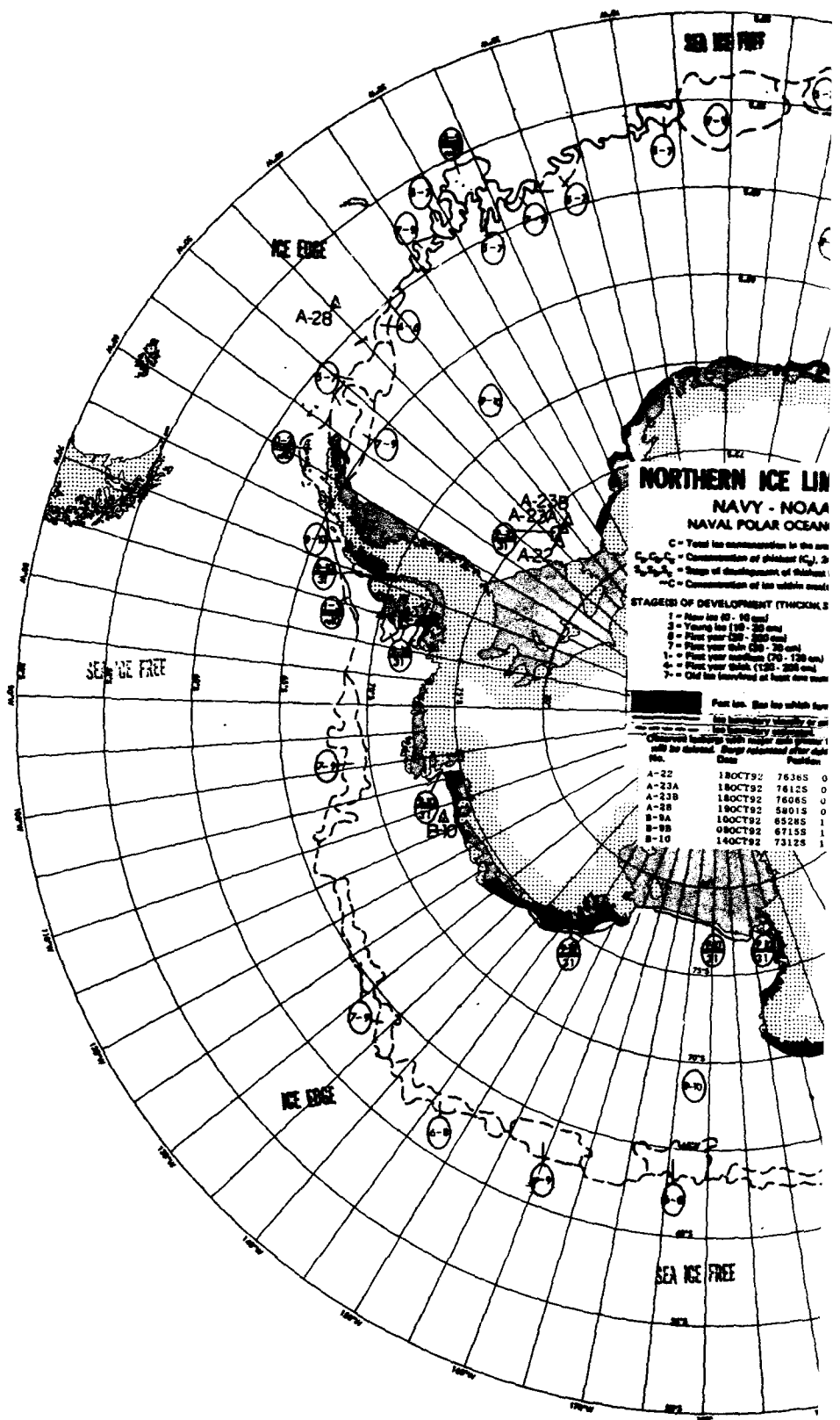


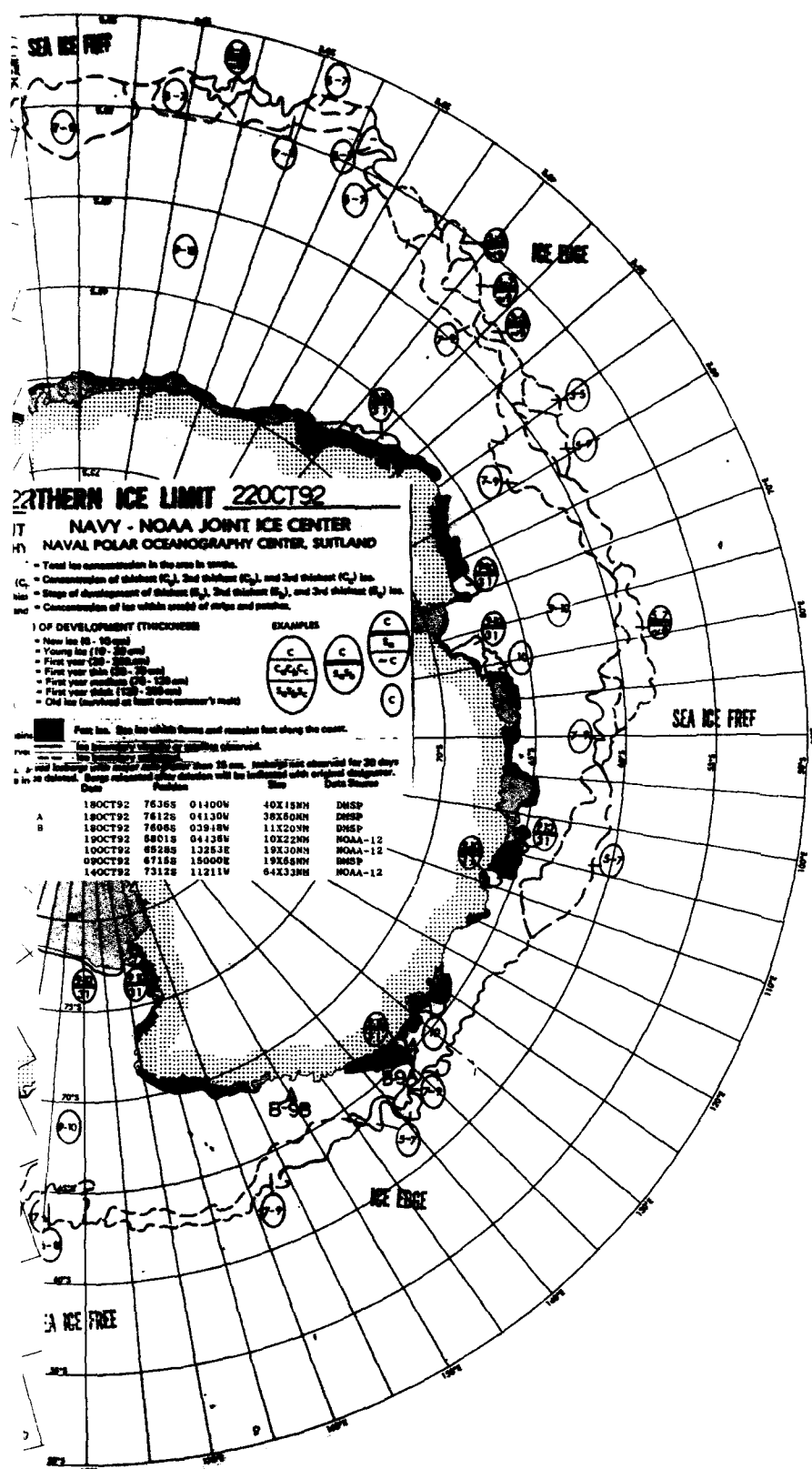


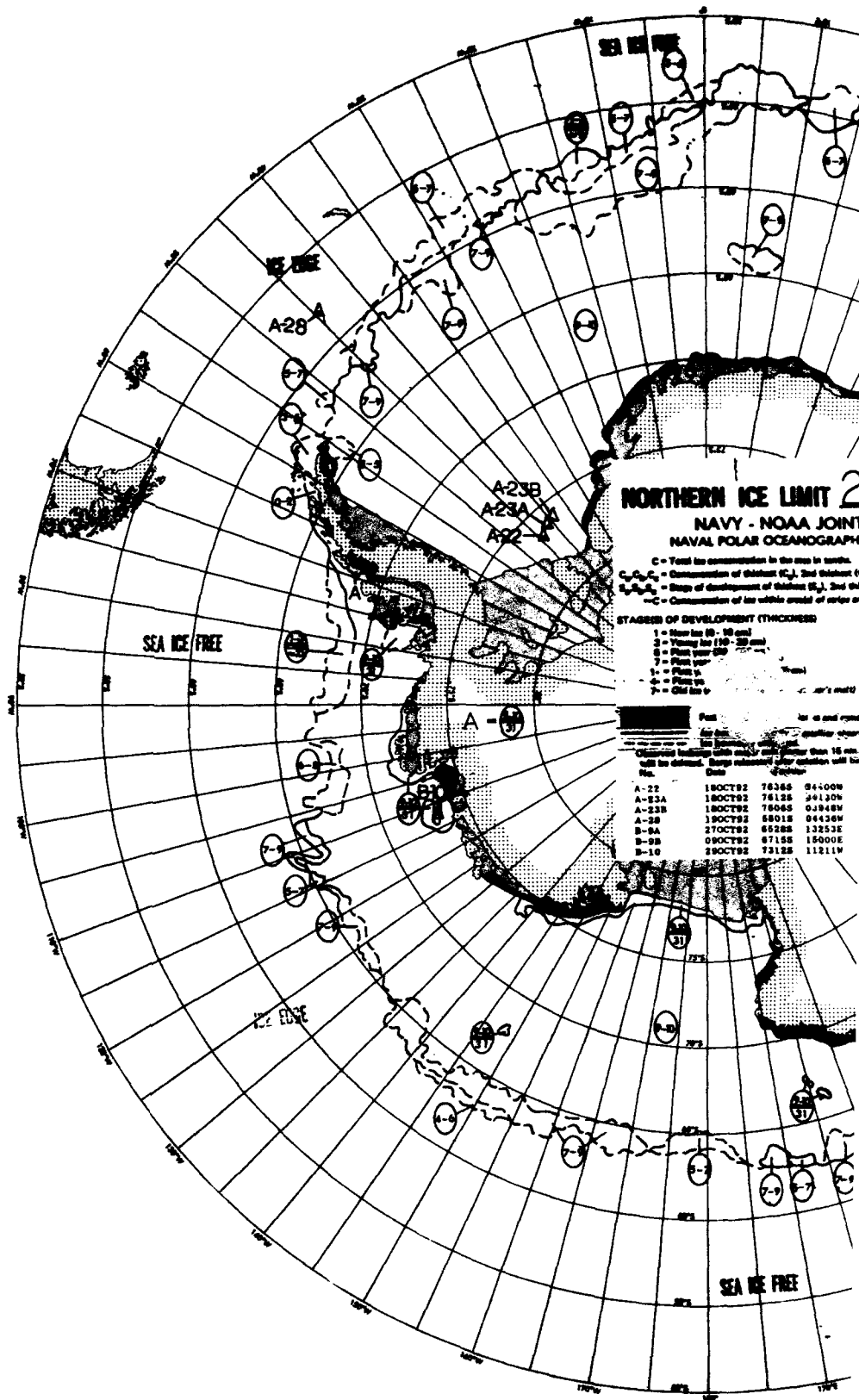


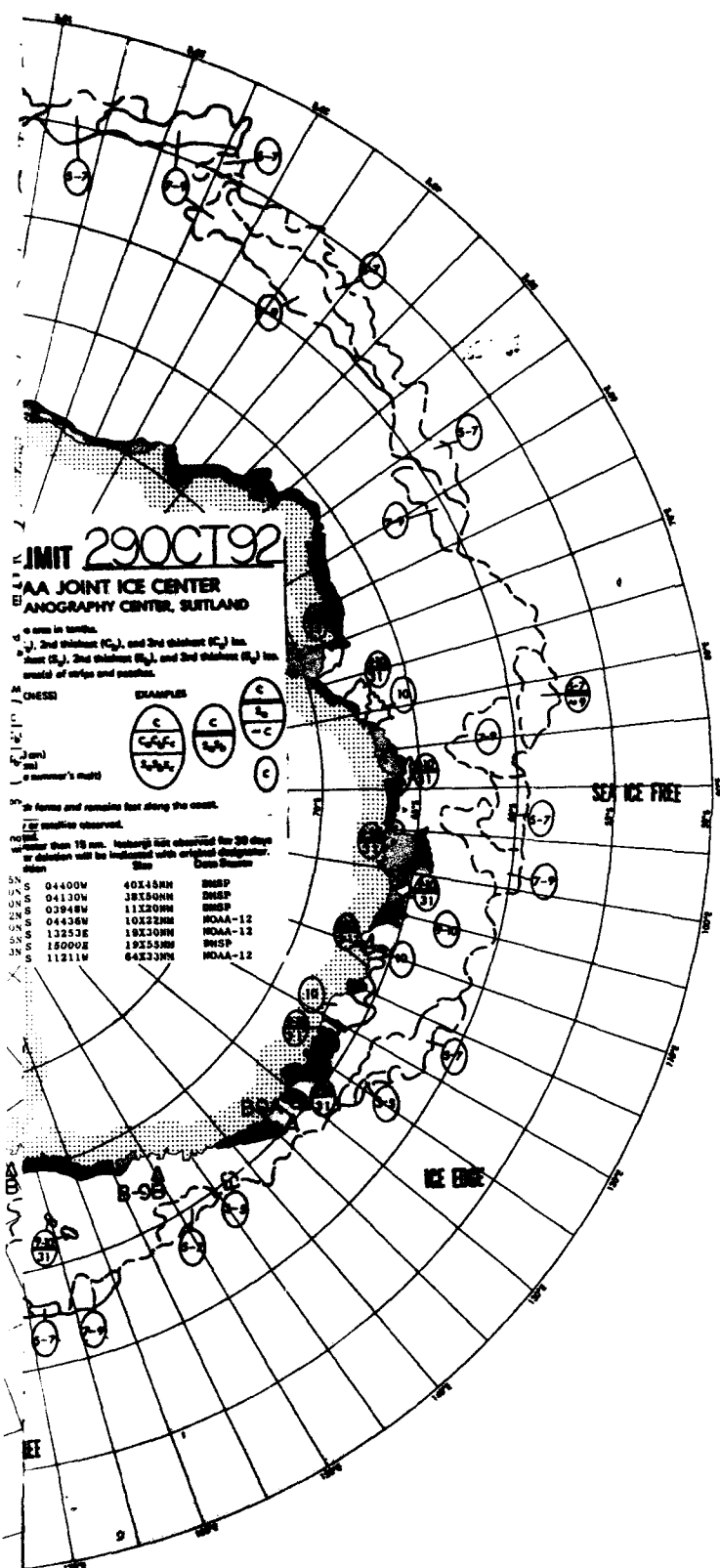


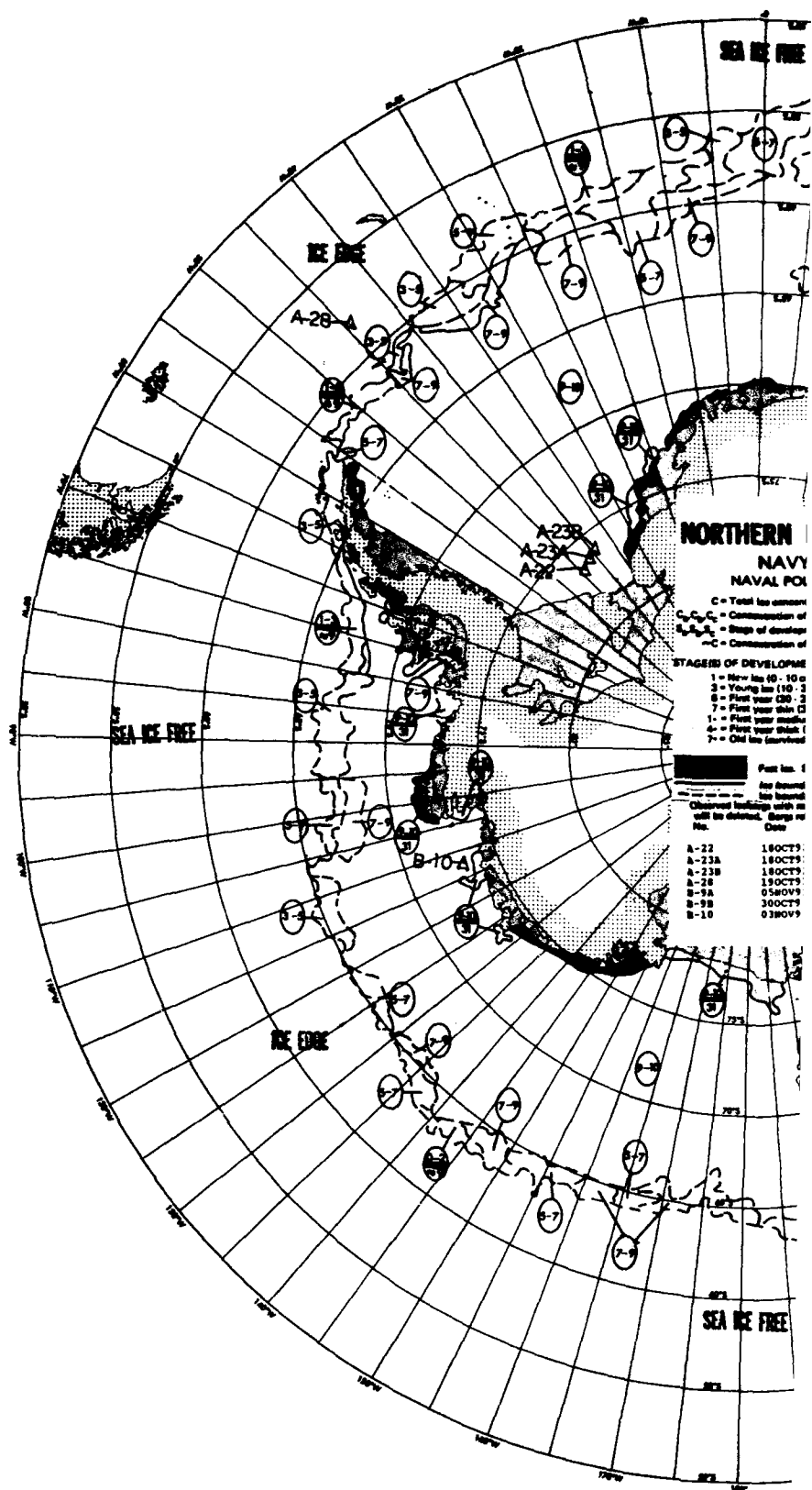


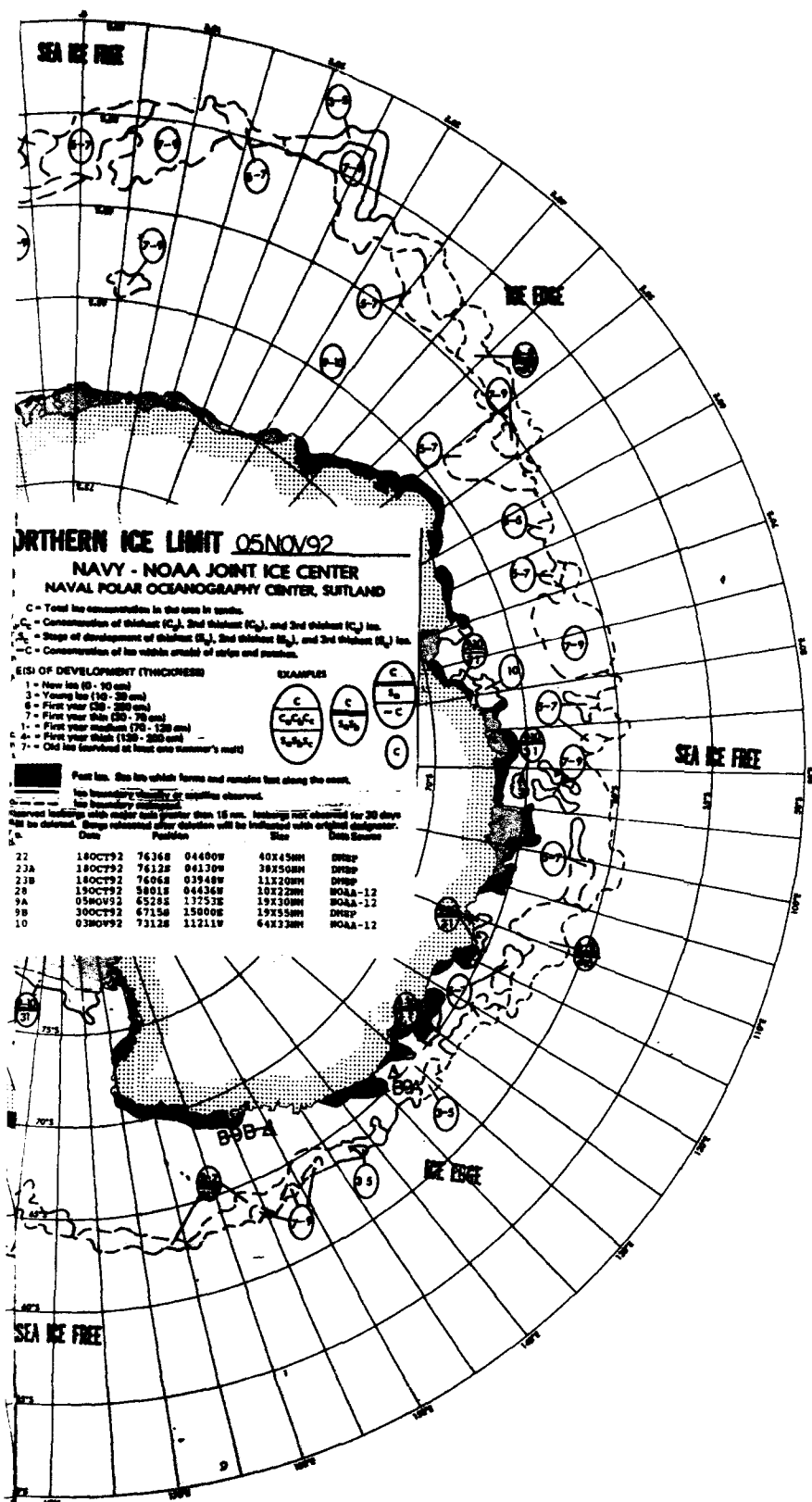


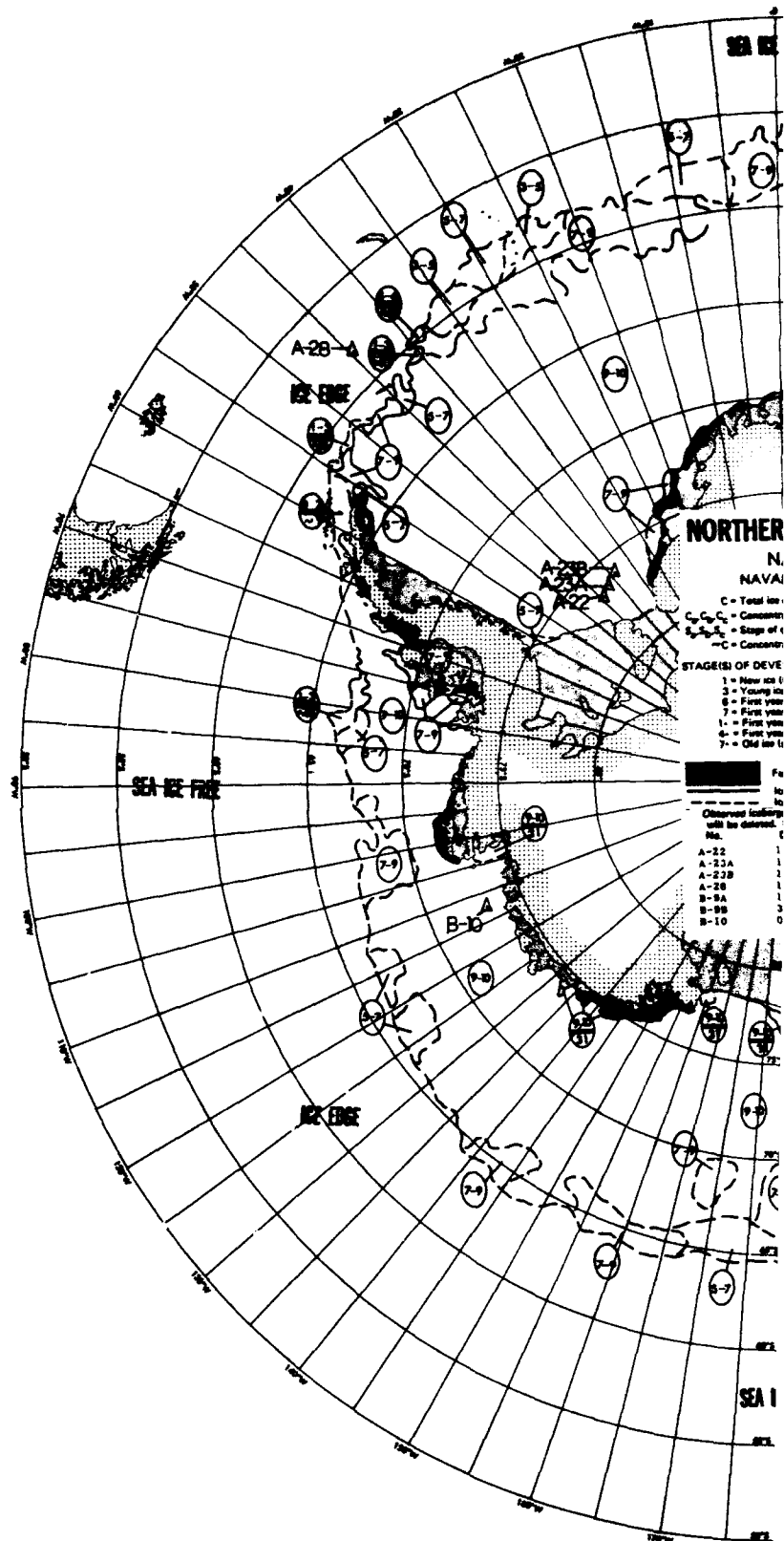


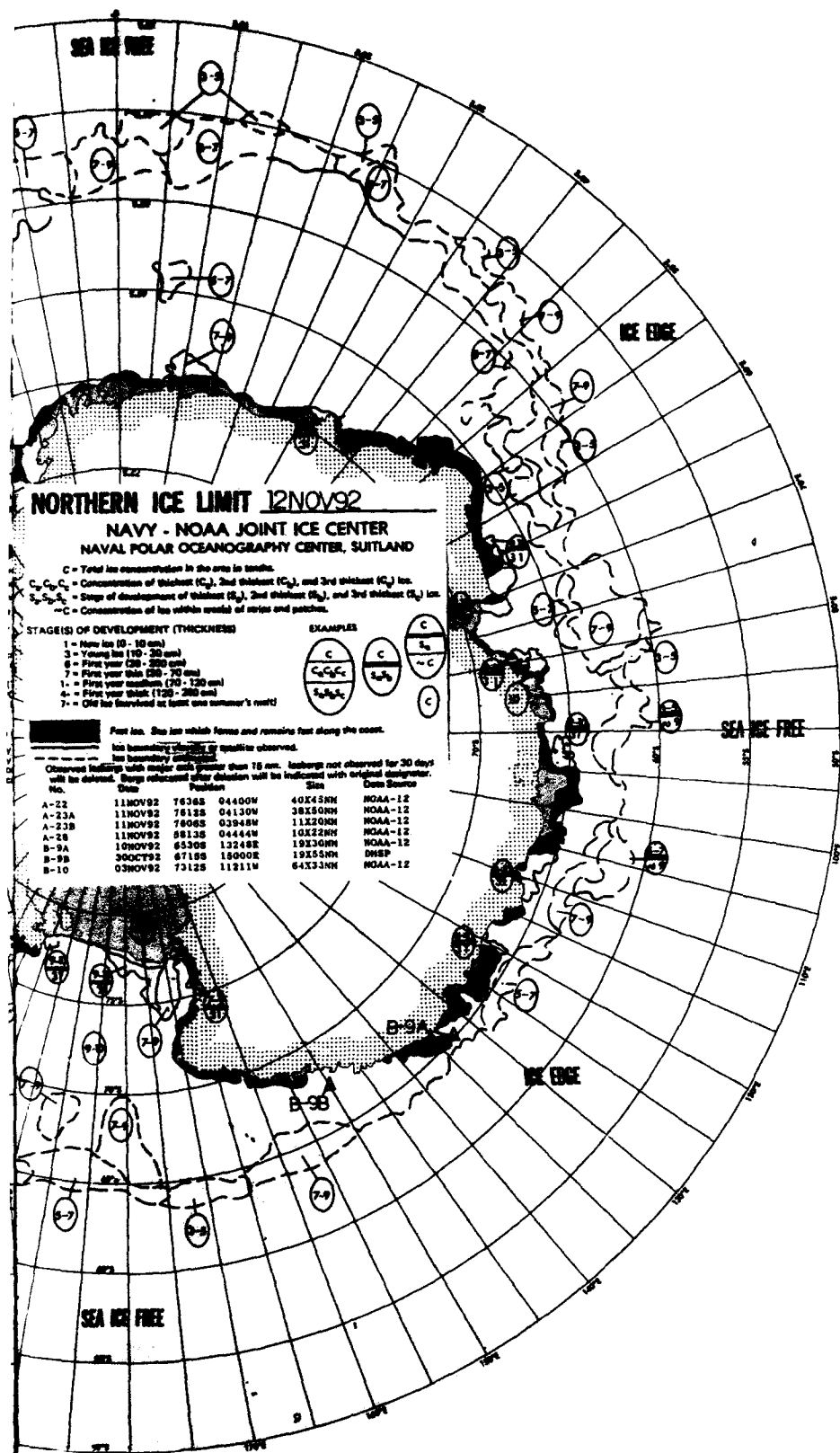


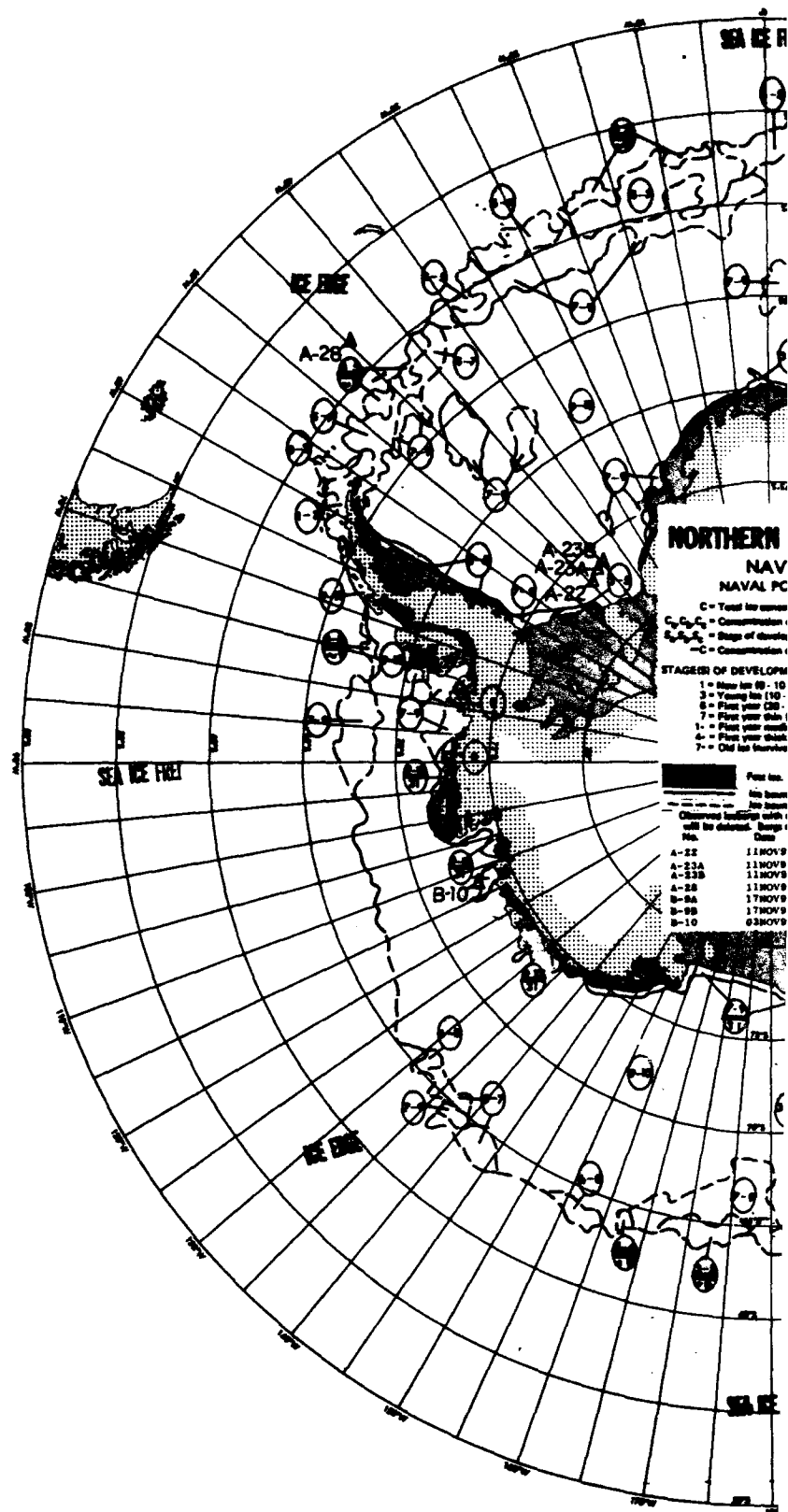


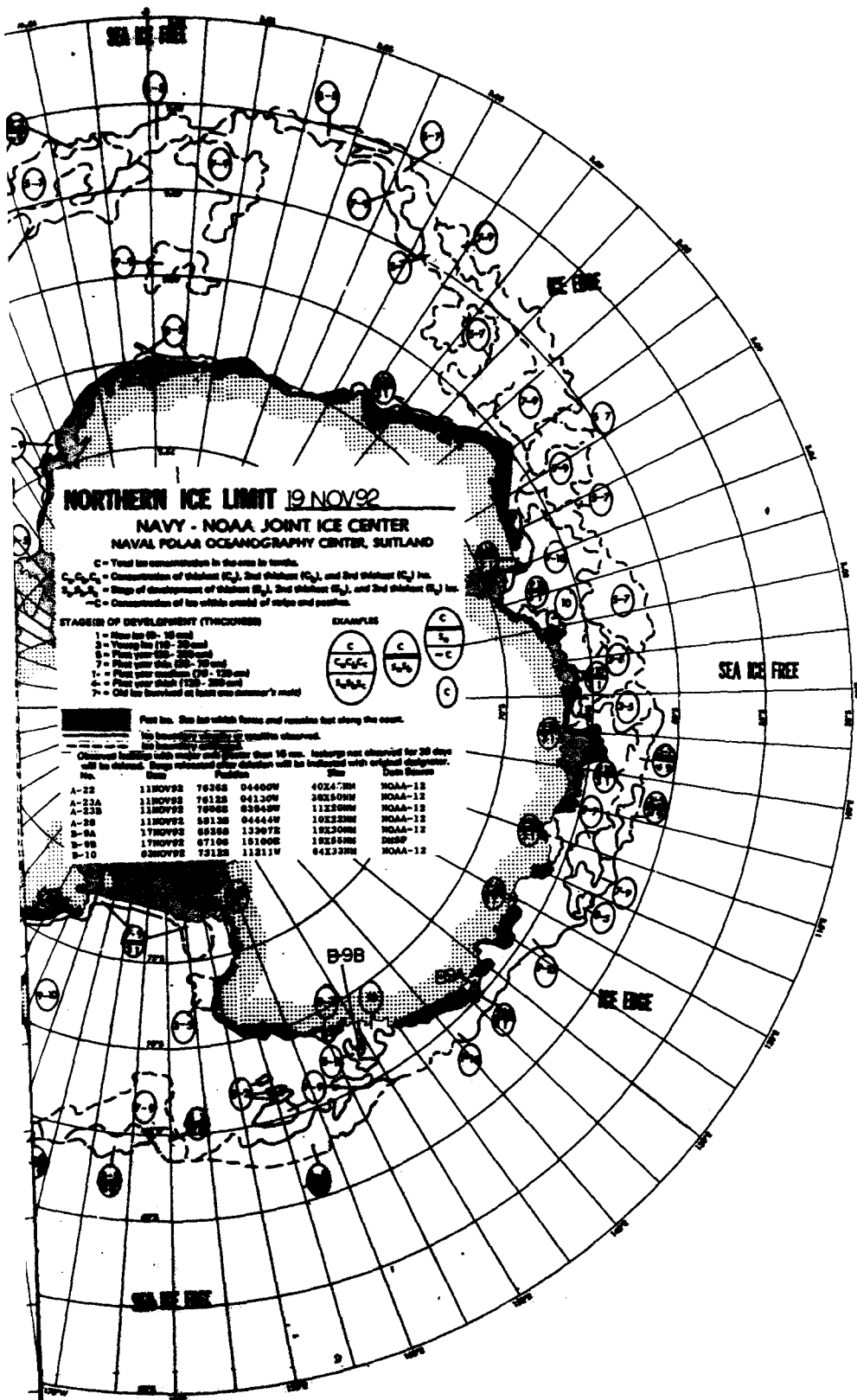


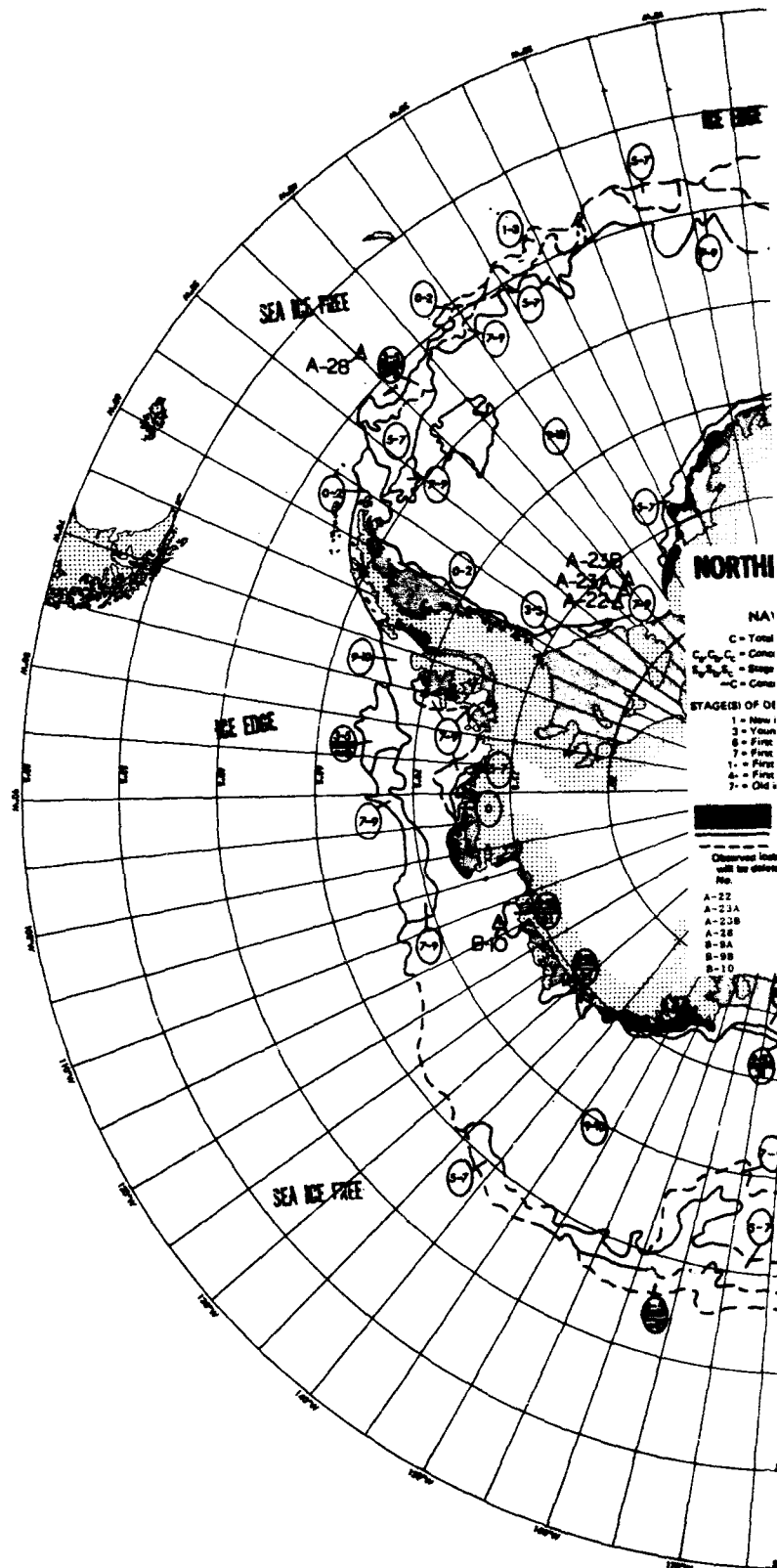


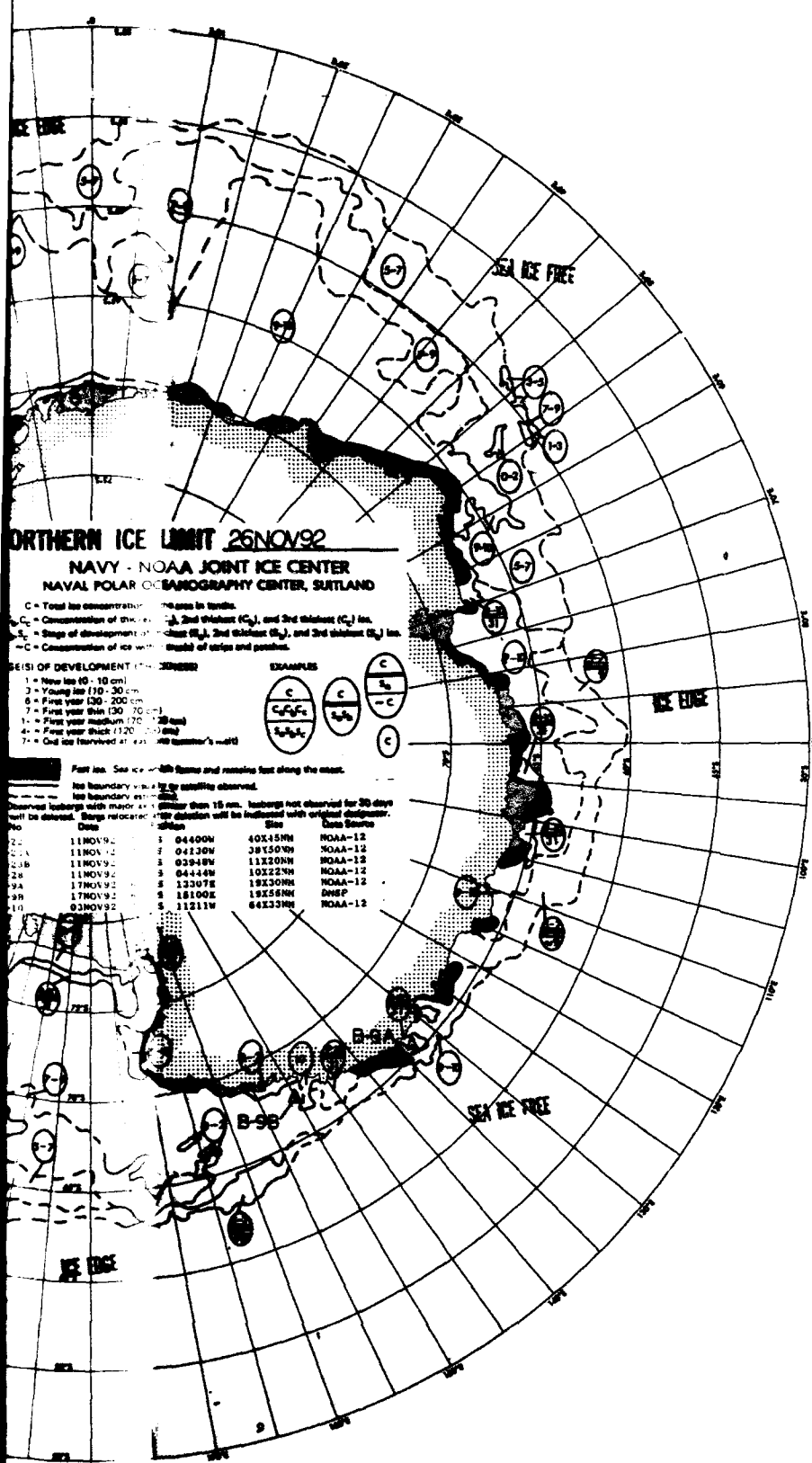












NORTHERN ICE LIMIT 26 NOV 92
NAVY - NOAA JOINT ICE CENTER
NAVAL POLAR OCEANOGRAPHY CENTER, SUTLAND

- C = Total ice concentration in tenths.
 C₁ = Concentration of the 1st thickest (C₁), and 2nd thickest (C₂) ice.
 C₂ = Stage of development of the 1st thickest (C₁), and 2nd thickest (C₂) ice.
 C₃ = Concentration of ice with thickness of edge and pond.
- SE(5) OF DEVELOPMENT**
- 1 = New ice (0 - 10 cm)
 - 2 = Young ice (10 - 30 cm)
 - 3 = First year thin (30 - 100 cm)
 - 4 = First year thick (100 - 200 cm)
 - 5 = First year medium (200 - 300 cm)
 - 6 = First year thick (300 - 400 cm)
 - 7 = Old ice (thick) (400 - 500 cm)
 - 8 = Old ice (thin) (500 - 600 cm)
 - 9 = Old ice (very thin) (600 - 700 cm)
 - 10 = Old ice (very thick) (700 - 800 cm)
 - 11 = Old ice (very old) (800 - 900 cm)
 - 12 = Old ice (very old) (900 - 1000 cm)

Part 1a. Sea ice edge forms and remains fast along the coast.	Part 1b. Sea ice edge forms and remains fast along the coast.
Part 1c. Sea ice edge forms and remains fast along the coast.	Part 1d. Sea ice edge forms and remains fast along the coast.
Part 1e. Sea ice edge forms and remains fast along the coast.	Part 1f. Sea ice edge forms and remains fast along the coast.
Part 1g. Sea ice edge forms and remains fast along the coast.	Part 1h. Sea ice edge forms and remains fast along the coast.
Part 1i. Sea ice edge forms and remains fast along the coast.	Part 1j. Sea ice edge forms and remains fast along the coast.
Part 1k. Sea ice edge forms and remains fast along the coast.	Part 1l. Sea ice edge forms and remains fast along the coast.
Part 1m. Sea ice edge forms and remains fast along the coast.	Part 1n. Sea ice edge forms and remains fast along the coast.
Part 1o. Sea ice edge forms and remains fast along the coast.	Part 1p. Sea ice edge forms and remains fast along the coast.
Part 1q. Sea ice edge forms and remains fast along the coast.	Part 1r. Sea ice edge forms and remains fast along the coast.
Part 1s. Sea ice edge forms and remains fast along the coast.	Part 1t. Sea ice edge forms and remains fast along the coast.
Part 1u. Sea ice edge forms and remains fast along the coast.	Part 1v. Sea ice edge forms and remains fast along the coast.
Part 1w. Sea ice edge forms and remains fast along the coast.	Part 1x. Sea ice edge forms and remains fast along the coast.
Part 1y. Sea ice edge forms and remains fast along the coast.	Part 1z. Sea ice edge forms and remains fast along the coast.

No	Date	Lat	Long	Size	Data Source
22	11 NOV 92	64 40 00N	40 15 00W	NOAA-12	
23	11 NOV 92	64 13 00N	39 15 00W	NOAA-12	
24	11 NOV 92	63 54 40N	11 12 00W	NOAA-12	
25	11 NOV 92	64 44 40N	10 12 20W	NOAA-12	
26	17 NOV 92	64 13 07E	18 23 00W	NOAA-12	
27	17 NOV 92	64 18 00E	18 23 00W	NOAA-12	
28	17 NOV 92	64 18 11W	64 12 30W	NOAA-12	
29	03 NOV 92	64 11 21W	64 12 30W	NOAA-12	

